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THIRD ANNUAL REPORT

OF THE

STATE BOARD OF HEALTH,

OF THE

STATE OF RHODE ISLAND,

FOR THE

YEAR ENDING DECEMEBER 31, 1880.

PROVIDENCE:
E. L. FREEMAN & CO., PRINTERS TO THE STATE.
1881.

MEMBERS

OF THE

RHODE ISLAND STATE BOARD OF HEALTH.

DECEMBER 31, 1880.

DAVID KING, M. D., *Chairman*	NEWPORT COUNTY.
DAVID SMITH	WASHINGTON COUNTY.
ALBERT G. SPRAGUE, M. D	KENT COUNTY.
OLIVER C. WIGGIN, M. D	PROVIDENCE COUNTY.
GEORGE W. JENCKES, M. D	PROVIDENCE COUNTY.
THOMAS H. SHIPMAN, M. D	BRISTOL COUNTY.
CHARLES H. FISHER, M. D., *ex-officio, and Secretary*	PROVIDENCE COUNTY.

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GENERAL REPORT OF THE BOARD.

To the Honorable the General Assembly:

In conformity with law, the Third Annual Report of the State Board of Health of Rhode Island is herewith presented.

It comprises, in the Annual Report of the Secretary, the statistics of births, marriages, and deaths, during 1879, with extended comments and comparisons of these events; a record of the general proceedings at the meetings of the Board; and an account of the work performed under its sanction or direction, during the year ending December 31, 1880.

It will be proper to say, however, that the Report of the Secretary does not include an account of all the investigations, proposed and prosecuted, to such extent as time and circumstances would permit. These will continue to be pursued as opportunity offers, until such time as a fuller report may seem to be expedient.

Several papers in relation to subjects appertaining to the prevention of disease and the promotion of public health, designed to be presented in this report, were not completed in time for that purpose, and will await a future presentation.

It has not been deemed the best policy, up to the present time, to report the nuisances that have come under the observation of the Board, by complaint or otherwise, and which seemed to threaten the public health or health of a few individuals, as the case might be; as nearly all have been of private character and have been abated by a courteous appeal to individual owners without resort to legal authority, and the parties would deprecate being named to the public. Such as are not abated are still under consideration.

There is a manifestly increased interest in the work of the Board, shown by persons of intelligence and culture, whose interest in the subjects of vital statistics, and general sanitation, lead to personal inquiry or correspondence.

It is apparent to the General Assembly that no extended investigation into the causes of disease, can be prosecuted by order of the Board with any such sum as has been heretofore appropriated for its use. It must be remembered that the expenses of the collection and supervision of the vital statistics, the expenses incurred in the prevention and restriction of contagious diseases among domestic animals, which had prior to the organization of the Board been defrayed through other departments, are now a part of the expenses of the Board, as well as what may be needed for current expenses in the discharge of other duties of the Board.

In the State of Massachusetts, the valuable reports of investigations made under the direction of the State Board of Health, were prosecuted by experts at an expense, in many single cases, exceeding the whole amount appropriated for all purposes in this State.

The various duties of the Secretary of this Board, aside from the occasional *temporary* investigations of sources of disease, demand the full employment of his time. He has however given attention, outside the ordinary hours of the officials of the State, to questions which have relation to the public health, and which will be reported at a suitable time.

Respectfully submitted,

DAVID KING,

Chairman.

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  “ Meteorology.
  “ Medical Correspondents.
  “ From Towns.
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REPORT OF THE SECRETARY.

To the Honorable the General Assembly, and the members of the State Board of Health of Rhode Island:

Herewith the Secretary of the Board respectfully submits his Third Annual Report.

The account of the proceedings of the Board will first be limited to a general sketch of the record of the meetings, as held at different times; a full account in detail not being deemed necessary in this connection.

Farther on in the Report, fuller statements will be made when the work of the Board in relation to the duties connected with the several departments of labor, namely: the investigation of the causes of disease; the collection, classification, tabulation and report of vital statistics; and the supervision of contagious and infectious diseases among domestic animals, is taken up in each special department, for consideration, and an account given of proceedings therein.

In regard to the public health during the year 1880, it may be said that no widespread epidemic has prevailed, although some localities have had severe visitations of scarlatina and diphtheria in an epidemic and malignant form. Judging from the reports of correspondents, cholera infantum has had larger prevalence than during the preceding two or three years, and acute diseases of the lungs were unusually numerous, and of more than average fatality during the earlier cold months of the year.

Remarks at greater length in relation to the prevalence of diseases, and the causes of disease, may be found on a subsequent page.

MEETINGS OF THE BOARD.

In addition to the annual and regular quarterly meetings of the Board, and adjournments of the same, there were held five special meetings during the year at which business was transacted.

At these meetings many questions in relation to the sanitary interests of the State were suggested and discussed informally; and various communications from the National Board of Health, from State and city boards of health, and sanitary associations of more or less magnitude, were received, read and action taken thereon.

At a meeting held March 5, 1880, after statements made by the Secretary, and a consideration of the circumstances demanding an additional regulation in relation to contagious diseases among domestic animals, the following was adopted as regulation fourth:

> All persons having the care or ownership of any horse or other animal suspected by any member of the State Board of Health, or its authorized agents, of having the disease called glanders, or any contagious or infectious disease dangerous to life, shall surrender possession of, or *securely keep*, said horse or other animal, in compliance with the orders of either of the members or agents aforesaid, *officially* emanating from the said State Board of Health, until the nature of the disease in question has been determined by a veterinary expert.

At the same meeting a resolution which had been passed on May 21, 1879, with the request that the Chairman would see that an act to carry into effect the provision of the resolution, was presented to the General Assembly at the May session of that year, was revived with slight changes, in consequence of the failure of the Committee on the Judiciary of the House of Representatives to report at that session in time for the passage of the act, which, with the resolution, had been presented as desired. The resolution was as follows:

> *Resolved*, That for the purpose of greater certainty in securing a quorum at every meeting of the State Board of Health, it is desirable that the Secretary be made a member *ex-officio*, and the Chairman is hereby requested to present the said resolution to the Honorable the General Assembly, at the May session of 1879, in Newport.

This resolution, changed in date to January session of 1880, was put in charge of the Secretary to be brought before the General Assembly at that session, with an act which should make the Secretary a member of the Board *ex-officio*, and define the official titles by which his various duties might be known.

In consequence of the action thus taken, the following amendment to section 10, of the act establishing a State Board of Health, was enacted by the General Assembly, March 11, 1880, so that the said section 10, will now read as follows:

SEC. 10. The Board shall elect a well qualified physician as their Secretary, who shall be *ex-officio* a member of the Board, the Commissioner of Public Health, and State Registrar, but he shall not be permitted to vote upon any question upon which he is personally interested, or be entitled to any additional compensation for mileage or expenses.

At this meeting correspondence with the Sanitary Council of the Mississippi Valley and other health boards, and with private individuals interested in plans for the promotion of the public health, were variously considered and acted upon.

The Board had been interested in a resolution which was introduced into the National House of Representatives at Washington, providing for the transmission through the mails at newspaper rates of postage, of all the regular publications of boards of health throughout the United States.

At a meeting held on April 7, 1880, the question came up for further consideration, and the Secretary was instructed to correspond with the Senators and Representatives in Congress from Rhode Island, and request their active interest in and support of the resolution.

The instructions were complied with, and replies were received from all the Rhode Island representation to the effect that the resolution had their entire approval, and that it would receive their hearty support.

The first change in the membership of the Board during the year was that of Hon. Elisha Dyer, Jr., member from Washington county.

The following letter from Col. Dyer is fully explanatory:

PROVIDENCE, April 2, 1880.

Charles H. Fisher, M. D., Secretary State Board of Health:

DEAR SIR,—I have this day forwarded to His Excellency the Governor my resignation as a member of the State Board of Health from Washington county.

Increasing cares and responsibilities require me to pass the greater portion of the year away from the county, and I am obliged thereby to remove my residence to the city of Providence.

In parting from the gentlemen of the Board, and particularly yourself, I beg to express my sincere regret at so doing, to thank one and all for the uniform courtesy and consideration that I have always received and to assure them, and yourself personally, that I shall always remember with great satisfaction my connection with the Board from its very beginning, and my hope that it will go on increasing in usefulness and power.

I am, my dear sir, very truly yours,

ELISHA DYER, JR.

At a meeting held April 28, DAVID SMITH, Esq., of Washington county, having been appointed to fill the vacancy occasioned by the resignation of Col. Dyer, was present, and after presentation of commission and engagement, was formally and cordially received in membership.

The following resolution, in relation to the resignation of Col. Dyer, was passed unanimously:

Resolved, That the Rhode Island State Board of Health hereby express a sincere regret that events have occurred which have severed the official relations of Hon. Elisha Dyer, Jr., with the Board; and they hereby bear testimony to the warm interest he invariably manifested in the work of the Board, and the kindly courtesy and uniform urbanity of manner evinced at all the meetings, and to the members individually.

Plans for uniform methods of investigation and modes of dissemination of useful knowledge among the people, applicable to all State boards of health, were discussed at some length at this meeting.

ANNUAL MEETING.

The first Wednesday in July having been established as the day for the annual meeting of the Board, a meeting was accordingly held on that day.

The second change in the membership of the Board occurred at this time, and was occasioned by the termination of the term of service of W. T. C. Wardwell, Esq., of Bristol county.

At this meeting Thomas H. Shipman, M. D., of Bristol county, having been appointed by the Governor to fill the vacancy in the membership from that county, appeared, and upon presentation of credentials was cordially received by the older members.

A summary report of the work of the Secretary in each of the departments during the previous six months was made.

An account of some of the abattoirs, and of the materials used in some of the manufacturing establishments in the neighborhood of the city of Providence, was the occasion of an appropriation by the Board, to be used in procuring analyses of water taken from some of the wells in the immediate vicinity of the Moshassuck and Woonasquatucket rivers. An account of some of this work will be given in another place.

The following circular from the National Board of Health in relation to adulteration of food was considered, and the Secretary was requested to correspond with Capt. Smart, of the U. S. Army, the supervising chemist of the National Board, and to take such steps in regard to the furnishing of samples for analysis as the circumstances seemed to warrant:

NATIONAL BOARD OF HEALTH,
WASHINGTON, D. C., June 1, 1880.

To C. H. Fisher, M. D., Secretary State Board, Rhode Island:

DEAR SIR,—The Executive Committee of the National Board of Health having directed Asst. Surgeon Smart, U. S. Army, to investigate and report concerning the prevalence of food adulteration in this country, any assistance which you may render him will be duly appreciated.

Very respectfully your obedient servant,

T. J. TURNER,

Secretary National Board of Health.

This matter will be considered at greater length in another part of this report.

The officers elected at this meeting for the year ending on the first Wednesday in July, 1881, were as follows:

Chairman,	DAVID KING, M. D.	Newport.
Secretary,	CHARLES H. FISHER, M. D.	North Scituate.
Auditor,	OLIVER C. WIGGIN, M. D.	Providence.

At the quarterly meeting held Oct. 6 the usual reports of the Secretary in regard to work in the various departments of labor were made, and also of the correspondence in relation to the various adulterations of food and the proposed analyses of samples of articles, composing or entering into the composition of food, under the auspices of the National Board of Health.

The report of Assistant Prof. E. E. Calder, of Brown University, of analyses of samples of water taken from wells in the immediate vicinity of the Moshassuck river, in accordance with a resolution passed by the Board at the meeting on July 7, was presented and placed on file. This report will be found on a subsequent page.

An extended account was also given of the occurrence of intermittent fever in Barrington, and of the circumstances connected therewith. This matter will be more fully presented in another part of this report.

The Secretary also called attention to the necessity of changes in, or additions to, the regulations adopted by the Board in relation to glanders in horses, in order to meet various exigencies which experience had shown to be likely at any time to occur.

After a deliberate consideration of proposed amendments, the following were adopted as the complete regulations of the Board, in relation to glanders and other contagious and infectious diseases among cattle and other domestic animals:

REGULATION I. No person having the care or ownership of any horse or other animal having the disease called glanders or farcy, or *suspected* of having such disease, (and so stated by any agent of the State Board of Health, or any person practicing veterinary surgery, or engaged in the treatment of diseased animals,) or any person in possession of any animal suspected of having any other disease highly contagious and dangerous to life, *shall sell or offer* for sale, or permit any such animal to go into or be in any public lane or highway, or expose or keep any such animal within the same building, or within fifty feet of any other animal not so infected, except by permission of some agent of said Board of Health.

REG. II. Any person practicing veterinary surgery, or treating diseased horses and other domestic animals, having *suspicion* that any animal treated or seen by him, has the disease called glanders or farcy, and all other persons having any knowledge or suspicion of any disease or any facts as set forth in the preceding section, shall report the same to some member of the State Board of Health immediately.

REG. III. No horse declared by competent authority to be affected with glanders or farcy shall hereafter be allowed to be kept for experiment, except by permission of some member of the State Board of Health; and all persons shall allow any member of the said Board, or any of its officers or agents, free access to, and full permission to examine any animal *suspected* of having the disease called glanders or farcy.

REG. IV. All persons having the care or ownership of any horse or other animal suspected by any member of the State Board of Health, or its authorized agents, of having the disease called glanders, or any contagious or infectious disease dangerous to life, shall surrender possession of, or *securely keep*, said horse or other animal, in compliance with the orders of either of the members or agents aforesaid, emanating from the office of the said State Board of Health, until the nature of the disease in question has been determined by a veterinary expert.

REG. V. A fee or reward of one dollar will be paid to any person giving notice to the Secretary, or any member of the Board or its agents, of a case of glanders not previously reported.

A special meeting was held Oct. 23 to hear the report of the Secretary in regard to the occurrence of a contagious or infectious parasitic disease of a fatal character, which had appeared in a herd of cattle in the town of Cumberland.

A history of the disease, and circumstances attending, will be given in another place.

The action of the Secretary was approved, and it was deemed expedient to appoint cattle appraisers for the Board, who might be called upon when occasion required.

The following gentlemen were then appointed appraisers of the Board, to act in any case upon call of the Secretary, where there seemed to be need of the destruction of any animal or animals affected with a contagious disease dangerous to life, or animals liable to convey the disease to other animals not so infected:

OBADIAH BROWN	Providence.
JABEZ W. MOWRY	Smithfield.
ARLON MOWRY	North Smithfield.

The Secretary was empowered by vote to fill vacancies or appoint substitutes.

A special meeting was also held Dec. 15, at which a review of the work of the Secretary for the closing year was given, and various accounts and bills of expenses incurred were examined, audited and ordered paid.

BY-LAWS.

No very important change has been made in the By-Laws during the year, and they now stand as follows:

SECTION 1. This body shall be known as the Rhode Island State Board of Health.

SEC. 2. The officers of the Board shall consist of a Chairman, Secretary and Auditor, to be chosen annually at the meeting in July.

SEC. 3. The duties of the Chairman shall be, to preside at the meetings of the Board, to put all votes, to decide questions of order, and to appoint all committees when not otherwise voted by the Board. He shall certify all audited bills to the Governor for payment.

SEC. 4. The Secretary shall perform all duties prescribed in the act establishing this Board, shall keep a record of the proceedings, shall do all acts usually incident to the office, and shall notify the members of all regular meetings, and by the advice of the Chairman, shall call all special meetings.

The Secretary shall have an office in the city of Providence, which he shall keep open between the hours of eleven A. M. and one o'clock P. M., upon all business days.

Sec. 5. The Auditor shall examine all bills and vouchers, and if correct shall certify the same to the Chairman of the Board.

Sec. 6. A majority of members shall constitute a quorum to transact business, but any member may adjourn.

Sec. 7. The regular meetings of this Board shall be holden at its office in the city of Providence, on the first Wednesday of July, October, January and April, respectively, at such hour as the Board may by vote determine from time to time.

In the following pages, from 9 to 148 inclusive, will be found the Report on the registration of births, marriages and deaths in Rhode Island in 1879, as presented the General Assembly in compliance with law; and also a variety of tables showing the different relations of the same events, by comparison during the same years, and during different years, in periods of years of various lengths from 1852 to 1880.

Births, Marriages and Deaths,

IN THE

STATE OF RHODE ISLAND,

FOR THE

YEAR ENDING DECEMBER 31, 1879.

ALSO

COMPARISONS OF THE SAME EVENTS FOR VARIOUS PERIODS
FROM 1852 TO 1880.

PREPARED BY

CHARLES H. FISHER, M. D.

TABLE I.

GENERAL ABSTRACT OF BIRTHS, MARRIAGES AND DEATHS.

IN THE STATE OF RHODE ISLAND DURING THE YEAR

1879.

TOWNS AND DIVISIONS OF THE STATE.	Population, 1880.	BIRTHS, 1879.							MARRIAGES, 1879.					DEATHS, 1879.												
		Whole Number.	SEX.		PARENTAGE.				Whole Number.	NATIVITY.				Whole Number.	SEX.		PARENTAGE.		Ages Given.		Aggregate Age in yrs.		Average Age in years.		Aggregate Age, in years, of all.	Average Age, in years, of all.
			Males.	Females.	American.	Foreign.	Am. father. For. mother.	For. father. Am. mother.		American.	Foreign.	Am. male. For. female.	For. male. Am. female.		Males.	Females.	American.	Foreign.	Males.	Females.	Males.	Females.	Males.	Females.		
Barrington	1,359	19	10	9	18	1	....	....	11	11	.....	.....	...	12	3	9	11	1	3	9	167	361	55.67	40.11	528	44.00
Bristol	6,028	135	72	63	58	54	13	10	40	28	8	1	3	82	37	45	57	25	37	45	1,395	2,162	37.70	48.04	3,557	43 38
Warren	4,008	86	51	35	45	33	2	6	43	18	16	5	4	56	26	30	24	32	25	30	956	1,049	38.24	34.97	2,005	36.45
BRISTOL COUNTY	11,395	240	133	107	121	88	15	16	94	57	24	6	7	150	66	84	92	58	65	84	2,518	3,572	38.74	42.52	6,090	40.87
Coventry	4,520	75	39	36	47	24	1	3	28	25	1	2	....	64	37	27	61	3	37	27	1,780	1,048	48.11	38 81	2,828	44.18
East Greenwich	2,887	56	23	33	30	16	6	4	36	25	6	3	2	42	20	22	26	16	20	22	828	1,000	41.40	45.45	1,828	43.52
West Greenwich	1,018	24	10	14	21	.....	....	3	6	5	.....	1	....	22	8	14	22	......	8	14	44	766	5.50	54.71	810	36.82
Warwick	12,167	277	139	138	105	134	20	18	101	47	32	14	8	183	89	94	100	83	89	94	2,695	2,770	30.28	29.46	5,465	29.86
KENT COUNTY	20,592	432	211	221	203	174	27	28	171	102	39	20	10	311	154	157	209	102	154	157	5,347	5,584	34.72	35.57	10,931	35.15
Jamestown	459	6	4	2	6	.....	....	....	4	4	.....	.....	...	2	1	1	1	1	1	1	47	1	47.00	1.00	48	24.00
Little Compton	1,201	13	8	5	9	3	1	....	3	3	.....	.....	....	12	6	6	12	......	6	6	325	341	54.17	56.83	666	55.50
Middletown	1,139	26	12	14	25	.....	....	1	2	2	.....	.....	....	15	9	6	14	1	9	6	414	349	46.00	58 17	763	50.87
New Shoreham	1,214	17	7	10	17	.....	....	....	4	4	.....	.....	....	6	2	4	6	......	2	4	87	180	43.50	45.00	267	44.50
Portsmouth	1,979	30	16	14	19	9	1	1	9	8	.....	.....	1	22	14	8	18	4	14	8	490	364	35.00	45.50	854	38.82
Tiverton	2,505	48	27	21	31	12	3	2	25	19	1	2	3	38	24	14	31	7	23	14	831	756	36.13	54 00	1,587	42 89
TOWNS, NEWPORT CO.	8,497	140	74	66	107	24	5	4	47	40	1	2	4	95	56	39	82	13	55	39	2,194	1,991	39.89	51.05	4,185	44.52
NEWPORT CITY	15,698	303	151	152	144	91	31	37	122	71	27	9	15	264	117	147	160	104	117	146	3,784	5,462	32 34	37.41	9,246	35.15

TOWNS AND DIVISIONS OF THE STATE.	Population, 1880.	BIRTHS, 1879.							MARRIAGES, 1879.					DEATHS, 1879.												
		Whole Number.	SEX.		PARENTAGE.				Whole Number.	NATIVITY.				Whole Number.	SEX.		PARENTAGE.		Ages Given.		Aggregate Age in yrs.		Average Age in years.		Aggregate Age, in years, of all.	Average Age, in years, of all.
			Males.	Females.	American.	Foreign.	Am. father. For. mother.	For. father. Am. mother.		American.	Foreign.	Am. male. For. female.	For. male. Am. female.		Males.	Females.	American.	Foreign.	Males.	Females.	Males.	Females.	Males.	Females.		
Burrillville....	5,716	138	76	62	46	66	6	20	30	13	7	3	7	76	40	36	42	34	40	36	1,413	1,650	35.32	45.83	3,063	40.30
Cranston....	5,941	113	63	50	56	35	14	8	11	9	1	1	....	121	62	59	61	60	62	59	2,670	2,407	43.06	40.79	5,077	41.96
Cumberland...... ..	6,445	154	88	66	43	92	9	10	45	11	24	4	6	81	45	36	29	52	45	36	1,283	1,275	28.51	35.42	2,558	31.58
East Providence......	5,056	168	86	82	83	64	9	12	27	21	1	3	2	93	45	48	60	33	44	48	1,209	1,728	27.48	36 00	2,937	31.92
Foster................	1,552	25	15	10	25	.....	....	..	43	41	1	....	1	23	13	10	23	......	13	10	826	717	63.54	71.70	1,543	67 09
Glocester..............	2,250	47	25	22	29	16	1	1	24	22	1	....	1	33	17	16	29	4	17	16	1,041	674	61.23	42.12	1,715	51.97
Johnston..............	5,765	129	55	74	79	34	7	9	22	20	.....	2	....	46	20	26	23	23	20	26	917	850	45.85	32.69	1,767	38.41
Lincoln....	13,867	383	186	197	86	248	14	35	75	44	17	7	7	190	91	99	50	140	90	97	2,104	2,335	23.38	24.07	4,439	23.74
North Providence....	1,467	41	20	21	18	14	6	3	2	2	.....	....	....	12	3	9	5	7	3	9	129	281	43.00	31.22	410	34.17
North Smithfield.....	3,088	85	35	50	24	50	3	8	29	14	10	2	3	39	22	17	17	22	22	17	641	547	29.14	32.18	1,188	30.46
Pawtucket...	19,061	483	253	230	174	197	47	65	172	102	30	27	13	319	142	177	151	168	142	174	4,469	5,191	31 47	29.83	9,660	30.57
Scituate........	3,810	71	29	42	56	10	3	2	46	41	1	2	2	46	21	25	37	9	21	25	944	1,205	44.95	48.20	2.149	46.72
Smithfield...........	3,085	61	31	30	28	23	4	6	11	9	1	1	....	24	11	13	17	7	11	13	392	661	35 64	50.84	1,053	43.87
Woonsocket..........	16,055	370	202	168	76	249	20	25	160	71	58	12	19	274	132	142	54	220	131	142	2.995	3,872	22 86	27.27	6.867	25.15
TOWNS, PROV. CO....	93,158	2,268	1,164	1,104	823	1,098	143	204	697	420	152	64	61	1,377	664	713	598	779	661	708	21,033	23,393	31.82	33.04	44,426	32.45
PROVIDENCE CITY....	104,862	2,522	1,297	1,225	1,029	1,035	199	259	1,071	653	217	98	103	2,026	1,004	1,022	941	1,085	1,004	1,022	28,198	30,194	28.09	29.54	58.392	28.82
Charlestown....	1,117	15	10	5	13	2	. ..	....	7	7	.....	....	....	17	10	7	16	1	10	7	719	424	71.90	60.57	1.143	67.23
Exeter....	1,310	31	17	14	31	.....	....	....	13	13	.....	....	....	16	6	10	16	......	6	10	265	521	44.17	52.10	786	49.12
Hopkinton	2,954	55	25	30	49	4	....	2	41	39	1	...	1	26	14	12	25	1	14	11	719	599	51.36	54.45	1.318	52.72
North Kingstown....	3,949	96	44	52	68	18	8	2	27	26	.....	....	1	46	21	25	38	8	21	25	871	1,271	41.48	50.84	2.142	46.56
South Kingstown.. ..	5,125	100	55	15	86	3	5	6	39	34	1	3	1	59	26	33	54	5	25	32	970	1,520	38.80	47.50	2.490	43.68
Richmond.......	1.949	48	27	21	37	7	3	1	7	7	.....	..	....	21	14	7	17	4	14	7	550	220	39.29	31.43	770	36.67
Westerly............	6,104	100	51	49	56	29	6	9	60	42	5	7	6	64	31	33	46	18	30	33	930	1.063	32.07	31.26	1,993	31.63
WASHINGTON CO.....	22,508	445	229	216	340	63	22	20	194	168	7	10	9	249	122	127	212	37	120	125	5,024	5,618	41.87	44.94	10,642	43.14
COUNTIES.																										
Bristol...............	11,395	240	133	107	121	88	15	16	94	57	24	6	7	150	66	84	92	58	65	81	2,518	3,572	38.74	42.52	6,090	40.87
Kent.................	20,592	432	211	221	203	174	27	28	171	102	39	20	10	311	154	157	209	102	154	157	5,347	5,584	34.72	35.57	10,931	35 15
Newport	24,195	443	225	218	251	115	36	41	169	111	28	11	19	359	173	186	242	117	172	185	5.978	7,453	34.75	40.28	13,431	37.62
Providence...	198.020	4,790	2,461	2,329	1,852	2.133	342	463	1,768	1,073	369	162	164	3,403	1,668	1,735	1.539	1,864	1,665	1,730	49.231	53.587	29.57	30.97	102.818	30.28
Washington..........	22,508	445	229	216	340	63	22	20	194	168	7	10	9	249	122	127	212	37	120	125	5,024	5.618	41.87	44.94	10.642	43.41
WHOLE STATE.......	276,710	6,350	3,259	3,091	2.767	2,573	442	568	2.396	1.511	467	209	209	4.472	2,183	2.289	2.294	2.178	2,176	2.281	68.098	75,814	31.29	33.24	143,912	32.29

Table II.—BIRTHS, 1879.

Arranged for Months, Sexes and Divisions of the State.

MONTHS.	SEX.	Whole State.	DIVISIONS OF THE STATE.						
			Bristol County.	Kent County.	Newport County, Towns.	Newport City.	Providence County, Towns.	Providence City.	Washington County.
January....	Males....	284	14	8	4	12	115	117	14
	Females..	236	9	10	8	13	105	80	11
	Total....	520	23	18	12	25	220	197	25
February...	Males....	230	6	15	4	15	79	95	16
	Females..	237	11	9	2	10	78	107	20
	Total....	467	17	24	6	25	157	202	36
March......	Males....	235	8	12	7	11	84	97	16
	Females..	243	6	22	3	12	88	91	21
	Total....	478	14	34	10	23	172	188	37
April......	Males....	260	11	23	5	10	78	111	22
	Females..	248	6	19	3	9	92	93	26
	Total....	508	17	42	8	19	170	204	48
May........	Males....	235	13	15	4	10	83	93	17
	Females..	251	12	16	6	12	75	112	18
	Total....	486	25	31	10	22	158	205	35
June.......	Males....	299	11	18	4	9	117	127	13
	Females..	263	11	18	8	15	79	112	20
	Total....	562	22	36	12	24	196	239	33
July.......	Males....	281	11	15	8	15	103	108	21
	Females..	259	10	21	2	10	96	104	16
	Total....	540	21	36	10	25	199	212	37

TABLE II.—BIRTHS, 1879.—Continued.

MONTHS.	SEX.	Whole State.	DIVISIONS OF THE STATE.						
			Bristol County.	Kent County.	Newport County, Towns.	Newport City.	Providence County, Towns.	Providence City.	Washington County.
August....	Males....	279	12	22	14	15	91	100	25
	Females..	299	12	34	6	12	98	115	22
	Total....	578	24	56	20	27	189	215	47
September..	Males....	273	9	19	3	15	92	109	26
	Females .	262	9	17	7	10	85	114	20
	Total....	535	18	36	10	25	177	223	46
October	Males....	287	13	13	6	16	99	124	16
	Females..	288	10	18	9	18	97	123	13
	Total....	575	23	31	15	34	196	247	29
November..	Males....	281	11	25	8	10	105	101	21
	Females..	219	4	19	7	19	93	66	11
	Total....	500	15	44	15	29	198	167	32
December ..	Males....	315	14	26	7	13	118	115	22
	Females..	286	7	18	5	12	118	108	18
	Total....	601	21	44	12	25	236	223	40
Whole Year.	Males....	3,259	133	211	74	151	1,164	1,297	229
	Females..	3,091	107	221	66	152	1,104	1,225	216
	Total....	6,350	240	432	140	303	2,268	2,522	445

TABLE III.—PLURALITY BIRTHS, 1879.

ARRANGED BY MONTHS AND DIVISIONS OF THE STATE, AND SHOWING THE NATIVITY OF THE PARENTS.

MONTHS.	Number of Cases.	SEX.	No. of Children.	DIVISIONS OF THE STATE.							NATIVITY OF THE PARENTS.															
				Bristol County.	Kent County.	Newport Co., Towns.	Newport City.	Providence Co., Towns.	Providence City.	Washington Co.	American.	Irish.	English.	Scotch.	British American.	Swedish.	Portuguese.	American Father. Irish Mother.	American father. English mother.	American father. Br. Am. mother.	German father. American mother.	Irish father. American mother.	English father. American mother.	English father. Br. Am. mother.	Scotch father. American mother.	Irish father. Br. Am. mother.
January....	9	Males. Females.	10 8	..	..	...	..	7	2	..	3	4	..	1	..	1	..	....	....	....	....	....	...	....	....	....
February....	2	Males. Females.	2 2	..	..	...	..	...	2	..	1	..	..	..	..	..	..	...	....	....	1	....	....	....	....	....
March.....	3	Males. Females.	2 4	..	..	...	..	3	..	..	1	..	..	..	1	..	..	....	....	....	...	..	....	1	....	....
April.......	4	Males. Females.	4 4	..	..	...	..	2	1	1	2	1	..	..	..	..	..	...	....	..	....	...	....	....	....	1
May	5	Males Females.	3 7	2	..	...	..	...	3	..	3	..	..	1	..	..	1	....	....	....	....	..	....	....	...	....
June.......	5	Males. Females.	8 2	..	..	...	..	2	2	1	2	1	..	..	1	..	..	....	...	...	...	....	1	....	....	....
July.......	6	Males Females.	7 5	1	1	...	1	2	..	1	5	1	..	..	..	..	..	....	...	....	....	....	....	...	....	....
August.....	9	Males. Females.	10 8	..	2	...	1	1	4	1	3	3	2	..	..	..	..	..	....	...	....	1	...	....	....	...
September...	6	Males. Females.	7 5	..	..	...	..	...	3	3	2	..	..	..	..	..	1	1	1	...	....	....	....	....	1	....
October....	3	Males. Females.	4 2	..	1	1	..	1	..	..	3	..	..	..	..	..	..	....	....	....	....	....	....	....	....	....
November...	3	Males Females.	3 3	..	..	...	..	1	2	..	2	..	1	..	..	..	..	....	....	....	...	....	....	....	....	...
December....	9	Males. Females.	10 8	..	3	...	1	1	4	..	4	2	..	..	1	..	..	..	....	1	....	....	1	....	...	....
Whole Year..	64	Males. Females.	70 58	3	7	1	3	20	23	7	31	12	3	2	3	1	2	1	1	1	1	1	2	1	1	1

TABLE IV.—MARRIAGES, 1879.

Arranged by Months and Divisions of the State.

MONTHS.	Whole State, 1879.	DIVISIONS OF THE STATE.							Whole State, 1878.
		Bristol County.	Kent County.	Newport County, Towns.	Newport City.	Providence County, Towns.	Providence City.	Washington County.	
January	217	6	20	5	9	59	102	16	197
February	183	7	12	3	7	61	85	8	160
March	121	2	7	3	5	39	47	18	159
First Quarter	521	15	39	11	21	159	234	42	516
April	198	6	20	4	11	60	83	14	169
May	205	6	18	1	7	61	98	14	192
June	208	3	12	3	13	62	96	19	208
Second Quarter	611	15	50	8	31	183	277	47	569
July	158	12	15	2	8	47	59	15	197
August	187	5	12	6	7	54	88	15	152
September	209	9	9		11	64	106	10	208
Third Quarter	554	26	36	8	26	165	253	40	557
October	221	18	12	5	16	52	103	15	236
November	292	12	26	8	17	75	128	26	258
December	197	8	8	7	11	63	76	24	182
Fourth Quarter	710	38	46	20	44	190	307	65	676
Whole Year	2,396	94	171	47	122	697	1,071	194	2,318

TABLE V.—AGES OF PERSONS MARRIED, 1879.

AGES OF MEN.	AGES OF WOMEN.												Whole Number of Males.
	Under 20.	20 to 25.	25 to 30.	30 to 35.	35 to 40.	40 to 45.	45 to 50.	50 to 55.	55 to 60.	60 to 65.	65 to 70.	Not stated.	
Under 20	66	26	2	....	....	..	..	..	..	..	..	..	94
20 to 25	325	495	73	7	3	1	..	..	..	..	..	1	905
25 to 30	115	312	214	34	13	2	..	..	..	..	..	1	691
30 to 35	24	85	107	62	22	4	..	..	..	..	..	..	304
35 to 40	9	31	47	37	24	4	5	..	1	..	..	..	158
40 to 45	6	11	13	11	22	7	8	3	..	..	..	..	81
45 to 50	....	7	5	12	8	6	4	3	1	..	..	..	46
50 to 55	....	4	....	6	8	6	8	5	..	..	..	..	37
55 to 60	....	2	1	4	6	4	2	2	1	1	..	..	23
60 to 65	....	1	1	2	3	6	2	..	5	1	..	..	21
65 to 70	...	....	1	2	3	1	1	3	3	2	1	..	17
70 to 75	..	....	1	....	.	1	1	2	3	1	..	..	9
75 to 80	....	....	...	....	1	..	..	..	1	..	..	..	2
80 to 85	....	..	....	...	....	..	1	1	..	..	..	..	2
85 to 90	....	....	....	....	....	..	..	..	1	..	..	..	1
Not stated	....	...	....	....	1	..	..	..	..	..	..	4	5
Whole No. Females.	545	974	465	177	114	42	32	19	16	5	1	6	2,396

TABLE VI.—DEATHS, 1879.

Arranged by Months, Sexes, and Divisions of the State.

MONTHS.	SEX.	Whole State.	DIVISIONS OF THE STATE.						
			Bristol County.	Kent County.	Newport County, Towns.	Newport City.	Providence County, Towns.	Providence City.	Washington County.
January ...	Males...	230	7	20	5	15	62	111	10
	Females..	238	12	11	4	13	90	89	19
	Total....	468	19	31	9	28	152	200	29
February...	Males....	160	2	7	5	10	51	77	8
	Females..	175	6	16	3	6	57	74	13
	Total....	335	8	23	8	16	108	151	21
March	Males....	189	5	6	5	14	71	80	8
	Females..	193	2	13	1	11	71	83	12
	Total....	382	7	19	6	25	142	163	20
April..	Males....	162	6	11	5	8	45	80	7
	Females..	180	6	17	3	9	50	87	8
	Total....	342	12	28	8	17	95	167	15
May.......	Males....	159	5	10	3	8	55	68	10
	Females..	159	2	11	2	15	36	84	9
	Total....	318	7	21	5	23	91	152	19
June.......	Males....	134	3	14	6	10	32	53	16
	Females..	145	4	11	2	12	42	67	7
	Total....	279	7	25	8	22	74	120	23
July.......	Males....	186	10	10	1	10	55	89	11
	Females..	197	7	15	3	12	50	98	12
	Total....	383	17	25	4	22	105	187	23
August.....	Males....	233	9	14	7	14	84	92	13
	Females..	219	14	16	8	22	65	80	14
	Total....	452	23	30	15	36	149	172	27
September..	Males....	157	6	14	5	8	56	63	5
	Females..	182	15	12	4	15	56	71	9
	Total....	339	21	26	9	23	112	134	14
October ...	Males....	182	6	15	8	8	52	84	9
	Females..	209	6	11	4	18	81	83	6
	Total....	391	12	26	12	26	133	167	15
November ..	Males....	197	3	18	2	6	51	98	19
	Females..	191	4	12	3	8	54	102	8
	Total....	388	7	30	5	14	105	200	27
December...	Males....	194	4	15	4	6	50	109	6
	Females..	201	6	12	2	6	61	104	10
	Total....	395	10	27	6	12	111	213	16
Whole Year.	Males....	2,183	66	154	56	117	664	1,004	122
	Females..	2,289	84	157	39	147	713	1,022	127
	Total....	4,472	150	311	95	264	1,377	2,026	249

TABLE VII.—DEATHS, 1879.

Showing the Number of each Sex, in each Period of Life, in every Town and Division of the State; also the Ratio of Deaths to Population.

TOWNS AND DIVISIONS OF THE STATE.	POPULATION, 1880.		DEATHS, 1879.					
	Whole Number.	SEX.	Per cent. to Population.	Whole Number.	SEX.	Under 1 year.	1 and under 2.	2 and under 3.
Barrington	1,359	Males. . .	.88	12	3	1	..	..
		Females.			9	..	..	1
Bristol	6,028	Males. . .	1.36	82	37	7	1	1
		Females.			45	3	3	2
Warren	4,008	Males. . .	1.39	56	26	4	..	..
		Females.			30	7	2	1
BRISTOL COUNTY	11,395	Males. . .	1.32	150	66	12	1	1
		Females.			84	10	5	4
Coventry	4,520	Males. . .	1.42	64	37	4	1	1
		Females.			27	5	1	..
East Greenwich	2,887	Males. . .	1.45	42	20	2	1	..
		Females.			22	2	1	1
West Greenwich	1,018	Males. . .	2.16	22	8	2	..	1
		Females.			14	..	..	
Warwick	12,167	Males. . .	1.50	183	89	20	8	7
		Females.			94	19	7	3
KENT COUNTY	20,592	Males. . .	1.51	311	154	28	10	9
		Females.			157	26	9	4
Jamestown	459	Males. . .	.44	2	1	..	..	..
		Females.			1	1	..	..
Little Compton	1,201	Males. . .	1.00	12	6	..	..	..
		Females.			6	..	1	..
Middletown	1,139	Males. . .	1.32	15	9	1	1	..
		Females.			6	1	..	..
New Shoreham	1,214	Males. . .	.49	6	2	..	..	..
		Females.			4	1	..	..
Portsmouth	1,979	Males. . .	1.11	22	14	5	..	..
		Females.			8	1	1	..
Tiverton	2,505	Males. . .	1.52	38	24	5	3	..
		Females.			14	1	..	..
TOWNS, NEWPORT CO.	8,497	Males. . .	1.12	95	56	11	4	..
		Females.			39	5	2	..
NEWPORT CITY	15,698	Males. . .	1.68	264	117	25	7	3
		Females.			147	27	7	5

TABLE VII.—DEATHS, 1879.—Continued.

3 and under 4.	4 and under 5.	5 and under 10.	10 and under 15.	15 and under 20	20 and under 30.	30 and under 40.	40 and under 50.	50 and under 60.	60 and under 70.	70 and under 80.	80 and under 90.	90 and over.	Not stated.
....	....	....	....	....	....	....	....	....	....	....	2	....	....
....	....	1	1	...	2	....	....	1	...	2	1	....	....
1	1	....	2	....	1	4	3	5	5	4	2	....	...
....	1	....	1	1	2	3	5	5	5	8	5	1	....
....	1	....	3	1	2	1	5	....	5	1	1	1	1
1	1	....	. .	1	2	1	3	1	4	3	2	1	....
1	2	....	5	1	3	5	8	5	10	5	5	1	1
1	2	1	2	2	6	4	8	7	9	13	8	2	....
...	....	2	....	2	2	2	2	2	5	10	3	1	....
....	...	1	3	....	3	1	1	2	5	2	2	1	....
..	2	1	....	....	3	....	1	1	2	7	...	....	....
1	....	2	....	1	...	1	1	2	2	4	3	1	....
....	2	1	2	....	....	....	....	....	....	....	....	..	....
....	....	1	1	....	....	2	2	....	3	3	1	1	....
2	3	4	....	3	5	3	5	4	8	9	8	...	....
3	3	4	3	4	9	9	3	5	9	8	2	3	...
2	7	8	2	5	10	5	8	7	15	26	11	1	....
4	3	8	7	5	12	13	7	9	19	17	8	6	....
..	....	....	....	....	....	....	1	....	...	....	....	...	....
....	....	...	....	..	....	....	....	....	....	....	....	....	....
....	....	1	....	....	1	1	....	....	....	....	3	....	....
....	....	....	....	..	....	1	....	....	1	1	1	1	...
1	....	....	....	....	....	....	....	....	5	...	....	1	...
....	....	...	....	..	....	1	....	..	....	3	1	....	....
....	....	...	....	....	....	1	....	1	....	....	....	....	....
...	....	...	....	...	..	....	....	1	2	....	...	....	....
...	1	....	....	....	1	....	1	2	1	2	...	1	...
....		...	....	....	1	....	1	...	1	2	1	....	....
...	1	2	....	....	2	...	1	...	2	3	4	....	1
....	...	....	....	1	1	1	1	3	3	1	....	2	....
1	2	3	...	...	4	2	3	3	8	5	7	2	1
..	....	....	....	1	2	3	2	4	7	7	3	3	...
4	2	8	2	2	6	9	7	11	16	10	5	....	....
4	2	11	4	2	7	8	9	9	13	20	16	2	1

TABLE VII.—DEATHS, 1879.—Continued.

TOWNS AND DIVISIONS OF THE STATE.	POPULATION, 1880.		DEATHS, 1879.					
	Whole Number.	SEX.	Per cent. to Population.	Whole Number.	SEX.	Under 1 year.	1 and under 2.	2 and under 3.
Burrillville......	5,716	Males...	1.33	76	40	9	2	1
		Females.			36	3	..	..
Cranston........	5,941	Males...	2.04	121	62	6	..	..
		Females.			59	4	4	1
Cumberland......	6,445	Males...	1.26	81	45	10	4	..
		Females.			36	7	2	2
East Providence..	5,056	Males...	1.84	93	45	13	3	3
		Females.			48	7	1	1
Foster....	1,552	Males...	1.48	23	13	...	..	..
		Females.			10	...	..	..
Glocester........	2,250	Males...	1.47	33	17	2	..	..
		Females.			16	3	2	1
Johnston........	5,765	Males...	.80	46	20	1	4	..
		Females.			26	2	4	1
Lincoln..........	13,867	Males...	1.37	190	91	21	14	5
		Females.			99	23	4	8
North Providence.	1,467	Males...	.82	12	3	1	..	..
		Females.			9	4	..	..
North Smithfield.	3,088	Males...	1.26	39	22	5	3	..
		Females.			17	3	2	1
Pawtucket.......	19,061	Males...	1.67	319	142	19	9	3
		Females.			177	19	17	7
Scituate.........	3,810	Males...	1.21	46	21	1	1	1
		Females.			25	2	1	..
Smithfield.......	3,085	Males...	.78	24	11	2	..	1
		Females.			13	...	1	1
Woonsocket.	16,055	Males...	1.71	274	132	43	12	4
		Females.			142	32	14	9
TOWNS, PROV. CO.	93,158	Males...	1.48	1,377	664	133	52	18
		Females.			713	109	52	32
PROVIDENCE CITY	104,862	Males...	1.93	2,026	1,004	168	76	48
		Females.			1,022	148	69	51
Charlestown.....	1,117	Males...	1.52	17	10	...	..	..
		Females.			7	..	..	..
Exeter....... ..	1,310	Males...	1.22	16	6	1	..	..
		Females.			10	1		..
Hopkinton..... ..	2,954	Males...	.88	26	14	1	1	..
		Females.			12	...	1	..
North Kingstown.	3,949	Males...	1.16	46	21	1	1	..
		Females.			25	2	1	..
South Kingstown.	5,125	Males...	1.15	59	26	...	3	1
		Females.			33	2	..	..
Richmond.......	1,949	Males...	1.08	21	14	3	..	2
		Females.			7	2	..	..
Westerly....	6,104	Males...	1.05	64	31	6	1	1
		Females.			33	9	2	..
WASHINGTON CO.	22,508	Males...	1.11	249	122	12	6	4
		Females.			127	16	4	..

TABLE VII.—DEATHS, 1879.—Continued.

3 and under 4.	4 and under 5.	5 and under 10.	10 and under 15.	15 and under 20.	20 and under 30.	30 and under 40.	40 and under 50.	50 and under 60.	60 and under 70.	70 and under 80.	80 and under 90.	90 and over.	Not stated.
2	....	1	1	....	6	2	3	2	3	2	6	....	....
1	2	1	....	3	5	....	2	4	3	7	4	1	....
3	....	3	...	1	4	9	6	10	10	8	2	....	....
....	2	3	....	4	3	10	6	2	6	8	5	1	....
2	...	1	1	1	8	4	2	3	6	1	1	1	....
1	....	....	....	1	4	3	2	4	5	1	4	....	....
....	1	2	1	....	2	4	2	4	3	5	1	....	1
....	2	2	2	3	4	4	2	5	10	5	....	....	....
....	....	....	....	....	2	....	1	1	4	....	4	1	....
....	....	....	....	....	....	....	....	3	2	3	....	2	....
....	....	....	1	....	....	1	....	2	2	1	5	3	....
....	....	....	....	....	....	1	1	1	3	1	2	1	....
....	....	2	....	....	...	1	1	1	4	2	3	1	....
1	....	1	1	2	1	3	2	2	1	3	2	....	....
....	3	1	1	4	12	6	6	3	7	4	2	1	1
5	1	8	....	4	11	5	7	5	7	7	....	2	2
....	....	....	....	....	....	....	1	....	....	....	1	....	....
....	....	....	....	....	1	....	2	....	....	1	1	....	....
....	2	....	1	....	3	....	1	1	2	2	2	....	....
....	....	1	....	....	2	2	2	....	....	2	1	1	....
12	5	11	2	2	15	9	8	12	18	12	4	1	....
10	5	9	4	8	26	12	11	8	11	15	10	2	3
....	....	1	....	....	3	. . .	3	4	4	2	1	...	....
....	....	...	....	2	2	1	2	2	9	2	1	1	....
....	..	1	1	....	...	1	1	....	2	1	1	....	....
....	...	....	....	2	.	2	...	....	1	2	4	...	....
6	3	6	3	2	9	4	6	10	11	9	2	1	1
1	3	4	2	10	10	12	8	6	15	9	6	1	....
25	14	29	12	10	64	41	41	53	76	49	35	9	3
19	15	29	9	39	69	55	47	42	73	66	40	12	5
52	37	81	20	20	80	81	56	81	90	75	36	3	....
34	31	94	23	28	113	83	67	71	82	74	47	7	....
...	....	....	....	....	...	1	....	2	1	2	3	1	....
....	....	....	....	1	...	....	1	1	1	2	....	1	....
....	....	....	...	....	1	....	2	....	....	2	....	....	....
....	....	....	....	1	1	1	1	....	1	1	3	....	....
....	....	....	....	....	....	3	2	...	3	2	2	....	....
....	....	....	....	....	...	2	1	2	2	....	3	....	1
1	....	3	1	....	....	3	1	2	4	3	1	....	....
1	....	1	....	1	2	....	3	1	1	8	4	....	....
....	1	3	2	....	1	....	3	1	5	4	1	....	1
1	....	1	....	2	3	4	4	3	4	1	4	3	1
....	1	1	...	....	....	....	....	1	....	3	3	....	....
....	1	1	....	....	...	1	....	....	....	....	1	1	....
1	...	1	...	1	2	2	8	2	4	1	....	....	1
....	1	...	2	2	2	4	2	1	1	4	1	2	...
2	2	8	3	1	4	9	16	8	17	17	10	1	2
2	2	3	2	7	8	12	12	8	10	16	16	7	2

TABLE VII.—DEATHS, 1879.—RECAPITULATION BY COUNTIES.

COUNTIES.	Population, 1880.			Deaths, 1879.					
	Whole Number.	SEX.		Per cent. to Population.	Whole Number.	Sex.	Under 1 year.	1 and under 2.	2 and under 3
BRISTOL CO...	11,395	Males. . Females	*	1.32	150	66 84	12 10	1 5	1 4
KENT CO.. ..	20,592	Males. . Females		1.51	311	154 157	28 26	10 9	9 4
NEWPORT CO.	24,195	Males. . Females		1.48	359	173 186	36 32	11 9	3 5
PROV. CO.. ..	198,020	Males. . Females		1.72	3,403	1,668 1,735	301 257	128 121	66 83
WASH. CO....	22,508	Males. . Females		1.11	249	122 127	12 16	6 4	4 ..
WHOLE STATE.	276,710	Males. . Females		1.62	4,472	2,183 2,289	389 341	156 148	83 96

* The number of the sexes, respectively, by the Census of 1880, was not ascertained when this Table went to press.

TABLE VII.—DEATHS, 1879.—RECAPITULATION BY COUNTIES.

3 and under 4.	4 and under 5.	5 and under 10.	10 and under 15.	15 and under 20.	20 and under 30.	30 and under 40.	40 and under 50.	50 and under 60.	60 and under 70.	70 and under 80.	80 and under 90.	90 and over.	Not stated.
1	2	....	5	1	3	5	8	5	10	5	5	1	1
1	2	1	2	2	6	4	8	7	9	13	8	2	....
2	7	8	2	5	10	5	8	7	15	26	11	1	....
4	3	8	7	5	12	13	7	9	19	17	8	6	....
5	4	11	2	2	10	11	10	14	24	15	12	2	1
4	2	11	4	3	9	11	11	13	20	27	19	5	1
77	51	110	32	30	144	122	97	134	166	124	71	12	3
53	46	123	32	67	182	138	114	113	155	140	87	19	5
2	2	8	3	1	4	9	16	8	17	17	10	1	2
2	2	3	2	7	8	12	12	8	10	16	16	7	2
87	66	137	44	39	171	152	139	168	232	187	109	17	7
64	55	146	47	84	217	178	152	150	213	213	138	39	8

TABLE VIII.—CAUSES OF DEATH, 1879.

Arranged Alphabetically; showing the Number of each Sex, who died from each cause, in each Month and in the whole year 1879; *also the Number of American and of Foreign Parentage, from each cause, for the year.*

CAUSES OF DEATH.	PARENTAGE.			Jan.		Feb.		Mar		Apr.		May.		June.		July.		Aug.		Sept.		Oct.		Nov.		Dec.		SEX.		
	Am.	For.	Total.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Accidents (various)........	14	22	36	3	..	3	..	4	2	1	1	1	1	3	1	2	..	1	2	3	1	2	..	..	1	2	2	25	11	36
" Burns and Scalds.	7	6	13	..	1	..	..	..	..	..	..	..	1	..	1	..	..	..	1	..	..	..	1	3	2	1	2	4	9	13
" Drowning.	9	13	22	2	..	..	..	2	..	3	..	2	1	2	..	4	..	3	..	2	..	1	..	..	..	..	..	21	1	22
" Falls..........	9	7	16	2	..	..	..	..	..	..	..	1	..	1	..	2	2	..	..	1	..	1	..	2	2	1	1	11	5	16
" Poisoning.......	3	2	5	..	..	1	..	2	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	3	2	5
" Railroad.........	2	8	10	1	..	1	..	..	..	..	..	..	..	1	..	1	..	1	..	..	..	1	..	2	..	2	..	10	...	10
Abscesses	10	4	14	..	..	1	..	1	..	..	..	1	1	1	1	..	..	1	1	..	1	..	2	..	2	..	1	5	9	14
Aorta, Disease of	...	1	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	...	1
Anæmia..................	5	2	7	..	2	..	..	1	..	..	..	..	1	..	1	..	..	1	..	..	..	..	1	..	..	..	..	2	5	7
Aneurism................	...	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	...	1
Apoplexy................	84	53	137	9	4	1	9	4	4	9	8	10	7	6	5	6	8	5	4	9	4	1	6	3	4	6	5	69	68	137
Asthma..................	1	12	13	1	1	..	1	..	..	..	2	1	1	1	1	..	1	..	..	..	..	..	..	1	..	1	1	5	8	13
Bladder, Disease of	5	7	12	..	..	3	..	..	..	1	..	..	..	1	..	2	1	2	..	..	..	..	..	2	..	..	..	11	1	12
" Gravel and Calculus.	1	...	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	...	1	1
Bones, Disease of	1	1	2	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1	2
Bowels, Disease of	1	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	1	1	2
Brain, Disease of.........	37	15	52	2	3	4	2	4	2	4	2	4	1	2	1	2	2	..	2	1	1	1	3	2	1	3	3	29	23	52
" Congestion of.......	12	14	26	..	3	1	2	3	1	..	..	1	..	..	..	1	..	3	1	..	..	2	1	2	3	2	..	15	11	26
" Inflammation of......	33	46	79	5	4	3	2	4	7	3	2	3	6	2	3	3	..	2	4	3	1	4	6	..	4	4	4	36	43	79
Bronchitis..............	31	31	62	4	9	5	4	8	4	..	4	2	..	2	2	1	..	2	2	1	1	..	..	5	3	1	2	31	31	62
Cancer (various)..........	41	29	70	3	4	1	1	3	5	2	2	5	5	2	3	2	2	2	5	..	4	..	4	4	4	3	4	27	43	70

CAUSES OF DEATH.	PARENTAGE.			Jan.		Feb.		Mar.		Apr.		May.		June.		July.		Aug.		Sept.		Oct.		Nov.		Dec.		SEX.		
	Am.	For.	Total.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Cancer of Breast	4	6	10	..	1	..	1	..	2	..	..	..	2	..	..	..	2	..	..	..	..	..	1	..	..	..	1	...	10	10
" of Stomach	13	11	24	..	1	1	..	1	1	..	1	..	2	2	1	3	2	..	1	1	..	1	1	1	1	2	1	12	12	24
" of Uterus	12	9	21	..	..	..	3	..	1	..	..	..	1	..	3	..	..	..	4	..	2	..	3	..	3	..	1	...	21	21
Cancrum Oris	1	...	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...	1	1
Carbuncle	1	...	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	...	1	1
Catarrh	2	3	5	..	..	..	..	..	1	..	..	..	..	..	1	1	..	1	1	..	..	..	..	..	..	..	..	2	3	5
Cellulitis, Pelvic	...	1	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...	1	1
Chicken Pox	...	1	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	...	1
Child-birth	12	14	26	..	3	..	2	..	1	..	3	..	..	..	1	..	3	..	1	..	2	..	1	..	2	..	7	...	26	26
" Puerperal Convulsions	4	4	8	..	..	..	1	..	1	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	2	..	2	...	8	8
" Puerperal Fever	5	4	9	..	..	..	2	..	1	..	1	..	..	..	..	..	1	..	..	..	1	..	1	..	1	..	1	...	9	9
Cholera Infantum	71	90	161	..	..	..	1	1	1	1	..	..	1	1	2	25	22	35	37	18	7	7	2	..	..	..	..	88	73	161
" Morbus	1	7	8	..	..	..	..	..	..	..	..	..	..	..	..	1	..	2	3	..	2	..	..	..	..	..	..	3	5	8
Colic	7	2	9	1	..	1	..	..	..	..	..	2	2	1	..	..	..	1	..	..	1	..	..	..	..	..	..	6	3	9
Consumption	278	359	637	36	34	27	28	37	31	24	25	22	25	16	20	16	30	23	41	18	27	24	37	23	26	20	27	286	351	637
Convulsions	37	62	99	5	6	7	2	1	4	5	2	6	1	4	1	5	6	8	9	4	6	2	2	1	4	3	5	51	48	99
Croup	40	56	96	8	7	6	7	11	4	4	3	2	3	3	4	1	..	1	..	3	1	7	5	8	2	4	2	58	38	96
Debility	34	49	83	2	5	3	2	6	3	..	3	2	4	2	1	4	7	5	1	4	5	5	6	4	4	2	3	39	44	83
" Birth Premature	7	9	16	..	..	..	..	2	2	..	..	1	..	..	..	1	2	..	..	..	4	..	2	2	..	..	..	6	10	16
Diabetes	11	4	15	1	1	..	..	1	..	1	1	..	..	1	1	1	2	1	..	..	..	1	1	1	..	..	1	8	7	15
Diarrhœa	17	28	45	1	1	1	..	..	..	..	..	..	1	2	2	5	8	7	6	6	1	..	..	2	1	1	..	25	20	45
" Chronic	5	3	8	..	..	..	..	..	2	..	2	1	..	..	..	..	..	..	..	1	..	..	..	..	1	1	..	3	5	8
Diphtheria	143	116	259	9	11	5	12	9	11	13	3	7	7	6	17	7	5	10	6	7	14	17	23	20	11	11	8	121	138	259
Dropsy	35	15	50	1	2	2	2	3	4	1	3	1	3	4	2	3	..	5	2	1	2	2	2	2	..	1	2	26	24	50
" of Chest	4	...	4	..	..	..	..	..	..	.	1	..	..	..	1	1	..	..	..	..	..	..	..	..	..	1	..	2	2	4
Dysentery	23	18	41	..	..	..	..	..	..	3	1	..	..	1	2	5	4	7	7	..	5	2	1	..	3	..	..	18	23	41
" Typhoid	2	1	3	1	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	2	1	3

Table VIII.—Deaths, 1879.—Continued.

CAUSES OF DEATH.	PARENTAGE.			Jan.		Feb.		Mar.		Apr.		May.		June.		July.		Aug.		Sept.		Oct.		Nov.		Dec.		SEX.		
	Am.	For.	Total.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Embolism and Thrombosis	2	...	2	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	1	2
Enteritis	19	15	34	3	2	..	2	..	..	1	1	1	..	1	2	1	7	2	..	1	1	5	1	1	..	2	..	18	16	34
Epilepsy	8	5	13	1	1	..	..	..	..	..	..	..	..	2	..	1	..	..	1	1	1	..	..	3	1	..	1	8	5	13
Erysipelas	9	12	21	2	..	1	..	2	2	2	2	..	1	1	1	..	1	2	..	..	..	..	1	2	..	1	..	13	8	21
Exposure to cold	1	2	3	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	2	3
Fever	4	6	10	..	..	1	1	..	2	..	1	..	..	..	..	..	..	1	..	..	1	1	1	..	..	..	1	3	7	10
" Gastric	...	1	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	...	1
" Remittent	1	1	2	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	2	...	2
" Typhoid	58	43	101	1	6	3	2	2	6	1	2	3	7	4	7	5	4	5	3	4	7	4	9	4	3	5	4	41	60	101
Fits	5	...	5	..	..	..	..	..	..	..	..	..	2	..	..	..	1	..	..	1	..	1	..	..	..	..	..	2	3	5
Gangrene	4	2	6	..	1	1	..	..	..	..	..	..	..	1	..	1	1	1	..	..	..	..	..	..	..	..	..	4	2	6
" Senile	7	...	7	..	..	1	1	..	..	..	..	1	..	1	..	1	..	1	..	..	..	..	1	..	..	..	..	5	2	7
Heart, Diseases of	124	70	194	10	9	12	6	9	6	10	14	9	6	7	3	7	5	8	8	5	5	11	7	16	6	7	8	111	83	194
" Hypertrophy of	3	5	8	..	..	..	..	..	1	..	1	2	1	..	..	1	1	..	..	..	..	..	..	..	..	..	1	3	5	8
Hemorrhage	7	7	14	1	..	..	..	..	..	1	1	..	..	1	1	..	..	1	..	1	1	3	..	..	1	..	2	8	6	14
" from Lungs	5	3	8	..	..	1	..	..	..	..	1	..	..	..	1	2	..	..	..	..	..	..	1	1	..	1	..	5	3	8
" from Stomach	1	2	3	..	1	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	2	3
Hernia	7	5	12	1	..	..	..	1	..	..	1	..	1	..	1	..	2	..	..	..	..	1	..	..	1	1	2	4	8	12
Hip-Joint, Disease of	1	6	7	..	..	..	..	..	..	1	..	1	..	..	..	2	..	1	..	..	..	..	..	1	1	..	..	6	1	7
Hooping Cough	22	21	43	3	1	1	2	1	2	1	4	2	3	3	3	1	2	1	3	..	..	1	2	1	3	2	1	17	26	43
Hydrocephalus	25	32	57	2	2	5	4	5	1	3	3	..	2	2	1	3	2	7	3	1	3	1	4	2	2	2	..	33	24	57
Inflammation	4	2	6	..	..	1	..	..	..	..	..	1	1	..	..	..	..	..	1	..	1	1	..	..	..	..	..	3	3	6
Influenza	4	...	4	..	2	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	3	4
Insanity	10	7	17	..	3	..	..	1	..	..	..	5	..	..	..	1	..	1	..	1	1	..	..	2	1	..	1	11	6	17

CAUSES OF DEATH.	PARENTAGE.			Jan.		Feb.		Mar.		Apr.		May.		June.		July.		Aug.		Sept.		Oct.		Nov.		Dec.		SEX.		
	Am.	For.	Total.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Intemperance	5	7	12	1	1	1						1			1	1				2		1			1	2		9	3	12
" Delirium Tremens	1	2	3							1		1												1				3		3
" Opium Eating	1		1										1																1	1
Intussusception	2		2			1											1											1	1	2
Jaundice	2	1	3						1		1			1														1	2	3
Kidneys, Disease of	11	7	18	2	1	2	2			1			2	1	1	1	1			1			1		1		1	8	10	18
" Bright's Disease of	33	28	61	4	3	1	1	4	3	2	2	6		2	2	6	1	3	1	6	1	4	1		1	5	2	43	18	61
Lead Poisoning		1	1									1																1		1
Laryngitis	1	1	2															1		1								2		2
Leucocythæmia	1		1																	1								1		1
Liver, Disease of	24	20	44	3	2	1	1	3	4	3	1	1	3	1	2	1		3		1		3	2	3	1	3	2	26	18	44
" Inflammation of	5		5				1		1						1		1						1						5	5
Lungs, Disease of	5	7	12	1	2			1						1						2	1	3		1				9	3	12
Malformations (all kinds)	11	8	19	4	1			1		2	1	2				1			2	1	1			2	1			13	6	19
Marasmus	28	21	49	1	1	1	3		1	2	3	2	1		2	4	4	6	2	2	5		3	2	1	1	2	21	28	49
Menorrhagia		1	1								1																		1	1
Meningitis Cerebro-Spinal	5	5	10			1		1		2	1				1	2				1					1			7	3	10
" Spinal	6		6															2	2				1		1			2	4	6
Murder		1	1							1																		1		1
Neuralgia		1	1														1												1	1
Neglect	1	1	2													1									1			1	1	2
Old Age	152	68	220	17	23	8	13	5	13	6	12	7	6	5	8	5	8	8	13	6	13	7	8	4	12	4	9	82	138	220
Pharyngitis	1		1																			1						1		1
Paralysis	62	21	83	2	4	2	5	2	2	4	6	4		4	1	3	2	5	4	8	3	4	3	2	2	5	6	45	38	83
Phlebitis	1	1	2		1					1																		1	1	2
Peritonitis	12	12	24				1	3		2			2	1	1	1	3	1	2		1	1	3		2			9	15	24

TABLE VIII.—DEATHS, 1879.—Continued.

CAUSES OF DEATH.	PARENTAGE.			Jan.		Feb.		Mar.		Apr.		May.		June.		July.		Aug.		Sept.		Oct.		Nov.		Dec.		SEX.		
	Am.	For.	Total.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Phlegmasia Dolens	...	1	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...	1	1
Pleurisy	2	7	9	1	..	..	..	..	..	..	..	1	..	1	1	..	1	..	1	1	..	..	..	..	..	..	2	4	5	9
Pneumonia	148	138	286	40	38	15	14	15	21	16	10	10	10	4	5	3	2	5	3	4	10	8	10	4	11	11	17	135	151	286
" Congestion of Lungs	15	10	25	4	2	1	..	1	1	1	1	2	2	1	2	..	..	..	..	..	1	2	..	..	3	1	..	13	12	25
Prostate, Disease of	4	...	4	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	1	..	1	..	..	..	4	...	4
Pyæmia	...	4	4	..	..	..	1	..	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	3	4
Rachitis	1	...	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	...	1
Rheumatism	11	13	24	1	..	1	4	3		..	..	..	..	2	2	..	3	1	..	1	..	1	..	..	3	1	1	11	13	24
Scarlatina	130	181	311	9	6	9	6	5	7	5	9	7	7	2	3	4	3	8	6	8	15	22	17	36	29	49	39	164	147	311
Scrofula	5	7	12	..	..	1	2	1	..	..	..	..	..	1	..	..	4	1	..	1	..	..	1	..	..	..	..	5	7	12
Septicæmia	2	...	2	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2
Skin, Disease of	2	1	3	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	2	1	3
Spine, Disease of	4	7	11	..	..	..	..	..	..	3	1	..	..	..	..	..	1	..	2	..	..	..	..	1	1	2	..	6	5	11
Stomach, Disease of	6	3	9	1	..	..	..	1	..	..	1	1	1	..	..	1	..	2	..	..	..	..	1	..	..	..	..	6	3	9
" Inflammation of	8	9	17	..	2	..	2	..	..	..	..	1	..	1	2	2	..	3	2	..	..	..	1	..	..	1	..	8	9	17
Suicide	5	8	13	1	..	..	..	..	..	1	2	1	..	2	..	1	..	..	..	..	1	..	..	3	..	1	..	10	3	13
Surgical Operations	2	2	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	1	..	..	..	1	..	4	...	4
Syphilis	2	1	3	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	1	..	..	..	..	..	..	..	..	1	2	3
" Congenital	6	1	7	..	..	..	..	..	1	..	1	..	..	1	1	1	..	..	1	..	..	..	..	1	..	..	..	3	4	7
Tabes Mesenterica	1	2	3	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	1	..	..	1	2	3
Teething	6	16	22	..	1	..	..	..	2	..	..	..	..	1	..	1	4	..	2	1	1	4	2	..	1	1	1	8	14	22
Tetanus and Tris. Nascen.	2	4	6	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1	..	..	1	1	..	1	..	..	..	4	2	6
Thrush	...	1	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	...	1
Tuberculosis	19	17	36	2	2	3	2	..	..	1	1	4	6	..	1	..	..	1	3	1	1	1	..	..	4	2	1	15	21	36

CAUSES OF DEATH.	PARENTAGE.			Jan.		Feb.		Mar.		Apr.		May.		June.		July.		Aug.		Sept.		Oct.		Nov.		Dec.		SEX.		
	Am.	For.	Total.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Tumor	13	4	17	..	..	..	1	..	3	..	1	..	4	..	..	1	2	..	..	..	1	..	2	..	..	..	2	1	16	17
Uræmia	...	2	2	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	1	2
Worms	1	...	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...	1	1
Unknown	123	131	254	14	16	7	12	11	16	9	8	7	10	10	10	11	14	16	11	8	12	6	13	11	6	9	7	119	135	254

TABLE IX.—CAUSES OF DEATH, 1879.

Arranged Alphabetically; showing the Number of each Sex, who died from each cause, in each Period of Life.

CAUSES OF DEATH.	Under 1.		1 and under 2.		2 to 5.		5 to 10.		10 to 15.		15 to 20.		20 to 30.		30 to 40.		40 to 50.		50 to 60.		60 to 70.		70 to 80.		80 and over.		Age not stated.		SEX.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Accidents (various)	3	2	..	..	3	2	3	1	2	..	2	..	1	..	3	1	2	..	1	1	3	2	1	..	1	2	..	..	25	11	36
" Burns and Scalds	..	1	..	1	2	2	1	..	..	..	..	..	1	1	..	..	..	2	..	..	..	..	..	1	..	..	..	1	4	9	13
" Drowning	..	..	1	1	2	..	3	..	3	..	..	..	3		7	..	2	..	..	..	..	..	..	..	..	..	..	..	21	1	22
" Falls	..	1	..	..	..	..	1	..	2	..	..	..	..	..	2	..	..	..	3	..	1	1	1	2	1	1	..	..	11	5	16
" Poisoning	..	..	..	..	1	1	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	1	..	..	..	..	..	..	3	2	5
" Railroad	..	..	..	..	..	..	1	..	..	..	1	..	3	..	1	..	2	..	..	..	..	..	2	..	..	..	..	..	10	....	10
Abscesses	1	1	1	1	..	..	..	1	..	..	..	2	1	3	..	..	..	..	..	..	2	1	..	..	..	..	..	..	5	9	14
Anæmia	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	1	..	1	..	..	1	1	..	..	..	..	..	1	2	5	7
Aneurism	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	....	1
Aorta, Disease of	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	....	1
Apoplexy	..	..	..	..	..	..	..	..	..	..	..	..	3	2	3	6	6	5	14	6	19	12	17	25	7	12	..	..	69	68	137
Asthma	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	2	1	1	3	1	2	..	..	..	..	5	8	13
Bladder, Disease of	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	..	..	..	7	..	1	..	..	..	11	1	12
" Gravel and Calculus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	...	1	1
Bones, Disease of	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	1	1	2
Bowels, Disease of	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	1	2
Brain, Disease of	2	5	1	1	..	..	2	..	..	..	..	..	..	1	6	3	1	..	5	3	5	4	4	5	3	1	..	..	29	23	52
" Congestion of	3	1	2	1	2	1	2	2	..	..	..	..	..	2	1	1	2	..	..	..	1	2	2	1	..	..	..	..	15	11	26
" Inflammation of	10	6	7	13	7	8	2	8	2	2	..	..	2	1	..	..	1	3	2	..	1	1	1	1	..	..	1	..	36	43	79
Bronchitis	14	10	4	3	3	1	..	..	..	..	..	..	..	1	..	..	2	2	..	..	2	3	5	3	1	8	..	..	31	31	62
Cancer (various)	..	..	..	..	..	..	..	..	..	..	..	..	1	..	2	5	4	5	3	11	7	10	6	8	4	3	..	1	27	43	70

CAUSES OF DEATH.	Under 1.		1 and under 2.		2 to 5.		5 to 10.		10 to 15.		15 to 20.		20 to 30.		30 to 40.		40 to 50.		50 to 60.		60 to 70.		70 to 80.		80 and over.		Age not stated.		SEX.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Cancer of Breast	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	3	..	3	..	2	..	1	..	..	..	..	..	10	10
" of Stomach	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	2	2	4	..	4	7	2	2	..	..	..	..	..	12	12	24
" of Uterus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	4	..	6	..	8	..	1	..	..	..	..	...	21	21
Cancrum Oris	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...	1	1
Carbuncle	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	...	1	1
Catarrh	1	2	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	2	3	5
Cellulitis, Pelvic	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...	1	1
Chicken Pox	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1
Child-birth	..	..	..	..	..		..	..	..	..	..	2	..	13	..	9	..	2	..	..	..	..	..	..	..	..	..	..	..	26	26
" Puerperal Convulsions	..	..	..	..	.	..	..	..	..	..	..	1	..	5	..	2	.	..	..	..	..	..	..	..	..	..	..	..	...	8	8
" Puerperal Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	3	..	3	..	..	..	..	..	..	..	..	..	..	...	9	9
Cholera Infantum	74	59	11	10	1	4	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	88	73	161
" Morbus	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	2	1	1	1	1	..	..	..	..	3	5	8
Colic	..	..	..	..	1	..	..	..	..	1	..	..	2	..	1	..	..	..	..	..	1	..	1	2	..	..	..	..	6	3	9
Consumption	6	4	2	4	2	4	3	2	5	12	17	45	94	92	54	65	38	43	28	40	23	22	10	14	2	3	2	1	286	351	637
Convulsions	37	28	4	8	7	12	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	51	48	99
Croup	8	3	15	12	26	14	9	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	58	38	96
Debility	24	24	2	..	1	2	..	8	..	..	..	1	1	2	1	1	3	..	2	3	5	11	..	..	..	..	..	..	39	44	83
" Birth Premature	6	10	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6	10	16
Diabetes	..	..	..	..	..	..	..	..	..	..	..	..	..	3	1	1	..	1	2	1	4	1	1	..	..	..	..	..	8	7	15
Diarrhœa	15	14	3	4	..	..	..	..	..	..	..	..	..	..	1	..	..	1	1	1	3	..	2	..	..	..	..	..	25	20	45
" Chronic	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	1	1	1	1	1	1	..	..	..	..	3	5	8
Diphtheria	10	13	22	19	51	57	30	33	5	6	3	4	..	2	..	1	..	1	..	2	..	..	..	..	..	..	..	..	121	138	259
Dropsy	..	..	.	..	1	..	..	..	..	..	1	..	..	2	..	..	6	3	1	4	6	2	7	7	4	6	..	..	26	24	50
" of Chest	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	1	1	..	..	..	2	2	4

TABLE IX.—CAUSES OF DEATH, 1879.—Continued.

CAUSES OF DEATH.	Under 1.		1 and under 2.		2 to 5.		5 to 10.		10 to 15.		15 to 20.		20 to 30.		30 to 40.		40 to 50.		50 to 60.		60 to 70.		70 to 80.		80 and over.		Age not stated.		SEX.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Dysentery	3	5	5	1	3	2	..	1	..	..	..	1	1	3	..	2	..	1	1	..	2	3	2	2	1	1	..	1	18	23	41
" Typhoid	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	2	1	3
Embolism and Thrombosis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2
Enteritis	4	3	6	1	..	..	..	..	1	..	1	1	..	3	..	1	..	1	3	2	3	4	..	..	..	..	..	..	18	16	34
Epilepsy	..	..	..	..	..	..	..	..	..	..	1	..	1	1	2	2	1	..	1	2	1	..	1	..	..	..	..	..	8	5	13
Erysipelas	3	1	..	..	1	1	..	2	..	1	..	..	..	1	2	..	1	..	2	1	2	..	..	1	2	..	..	..	13	8	21
Exposure to cold	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	1	..	..	..	..	1	2	3
Fever	..	1	..	..	..	1	..	1	..	2	..	..	1	..	..	..	..	..	..	..	..	..	1	2	1	..	..	..	3	7	10
" Gastric	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	....	1
" Remittent	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	2	....	2
" Typhoid	..	..	1	..	2	1	4	8	1	4	3	11	12	12	8	7	4	1	1	2	2	9	2	3	..	2	1	..	41	60	101
Fits	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	2	..	..	..	..	..	2	3	5
Gangrene	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	2	..	2	..	..	..	..	..	4	2	6
" Senile	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	3	1	1	1	..	..	5	2	7
Heart, Diseases of	..	1	1	..	..	2	3	4	1	1	3	1	6	2	5	6	11	14	23	10	23	26	26	9	9	7	..	..	111	83	194
" Hypertrophy of	..	..	..	..	..	..	..	..	2	..	..	..	..	1	..	2	..	..	..	..	1	1	..	1	..	..	..	..	3	5	8
Hemorrhage	2	..	..	..	..	..	..	..	..	..	..	..	..	2	2	3	..	..	1	..	1	..	..	1	1	..	1	..	8	6	14
" from Lungs	..	..	..	1	..	..	..	..	..	..	..	..	1	1	3	..	..	..	1	1	..	..	..	..	..	..	..	..	5	3	8
" from Stomach	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	1	..	..	..	..	..	..	1	2	3
Hernia	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	2	1	..	..	3	1	3	..	..	..	..	4	8	12
Hip-Joint, Disease of	..	..	..	..	2	..	1	..	2	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6	1	7
Hooping Cough	12	13	3	5	2	4	..	3	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	17	26	43
Hydrocephalus	15	10	8	5	8	6	2	2	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	33	24	57

CAUSES OF DEATH.	Under 1.		1 and under 2.		2 to 5.		5 to 10.		10 to 15.		15 to 20.		20 to 30.		30 to 40.		40 to 50.		50 to 60.		60 to 70.		70 to 80.		80 and over.		Age not stated.		SEX.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F	M.	F.	M.	F.	M.	F.	Total.
Inflammation					1			1		1					1								1	1					3	3	6
Influenza										1													1			2			1	3	4
Insanity											1		2		1	2	2		1		3	3		1	1				11	6	17
Intemperance															5		1	2	2	1	1								9	3	12
" Delirium Tremens																			1		1		1						3		3
" Opium Eating																						1								1	1
Intussusception	1	1																											1	1	2
Jaundice	1															1										1			1	2	3
Kidneys, Disease of						1								2	1	2			1	2	2	3	3		1				8	10	18
" Bright's Disease of								1			1		4	3	6	5	9	5	9	1	8	3	5		1				43	18	61
Lead Poisoning	1																												1		1
Laryngitis	1																		1										2		2
Leucocythæmia																	1												1		1
Liver, Disease of		1				1							3	1	1	3	3		3	1	11	3	4	7	1	1			26	18	44
" Inflammation of																						3		2						5	5
Lungs, Disease of	1	1			1	1						1	1		3						3								9	3	12
Malformations (all kinds)	11	6	2																										13	6	19
Marasmus	14	21	4	4	1	2	1									1			1										21	28	49
Menorrhagia																1														1	1
Meningitis Cerebro-Spinal	1			1	4						1			1		1	1												7	3	10
" Spinal	2	3						1																					2	4	6
Murder																			1										1		1
Neuralgia												1																		1	1
Neglect	1	1																											1	1	2
Old Age																					2	2	21	44	59	92			82	138	220

TABLE IX.—CAUSES OF DEATH, 1879.—Continued.

CAUSES OF DEATH.	Under 1.		1 and under 2.		2 to 5.		5 to 10.		10 to 15.		15 to 20.		20 to 30.		30 to 40.		40 to 50.		50 to 60.		60 to 70.		70 to 80.		80 and over.		Age not stated.		SEX.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Pharyngitis	1																												1	....	1
Paralysis	1						1	1				1		1	1	1	3	4	5	2	19	7	9	10	6	11			45	38	83
Phlebitis																		1			1								1	1	2
Peritonitis						1	1		1				2	6		2	1	2	1	1	1	1	1	2	1				9	15	24
Phlegmasia Dolens														1															...	1	1
Pleurisy														1	1	1			3			2				1			4	5	9
Pneumonia	29	18	11	16	13	5	2	6	1		1	2	4	9	10	14	11	13	18	16	16	19	11	24	8	9			135	151	286
" Congestion of Lungs	4	3		1	1	1								1	2	1	1	1		1	2	1	1	2	2				13	12	25
Prostate, Disease of																					2		1		1				4	....	4
Pyæmia								1					1	1				1											1	3	4
Rachitis							1																						1	...	1
Rheumatism									2	2		1	2	1	1	1		4	1		3	3	1	1	1				11	13	24
Scarlatina	4	7	19	17	78	61	51	48	6	10			2	2	1	1	1	1			1						1		164	147	311
Scrofula	1	2	2	1	1	2		1	1							1													5	7	12
Septicæmia					1									1															1	1	2
Skin, Disease of	1																			1					1				2	1	3
Spine, Disease of	1		1	1					1				1	1			1	1	1	1								1	6	5	11
Stomach, Disease of						1											2	1	2		1	1	1						6	3	9
" Inflammation of	2							2						1			1	1	2		1	2	2	3					8	9	17
Suicide											1		1	1	1	1			4	1	3								10	3	13
Surgical Operations													1								3								4	....	4
Syphilis														1						1			1						1	2	3
" Congenital	3	4																											3	4	7

CAUSES OF DEATH.	Under 1.		1 and under 2.		2 to 5.		5 to 10.		10 to 15.		15 to 20.		20 to 30.		30 to 40.		40 to 50.		50 to 60.		60 to 70.		70 to 80.		80 and over.		Age not stated.		SEX.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Tabes Mesenterica	1	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	3
Teething	3	5	5	8	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8	14	22
Tetanus and Tris. Nascen.	2	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	4	2	6
Thrush	.	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1
Tuberculosis	..	4	..	..	1	..	1	1	1	..	..	1	5	10	4	1	1	..	..	2	2	2	..	..	..	..	..	..	15	21	36
Tumor	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	2	..	1	..	3	..	4	..	3	..	1	..	..	1	16	17
Uræmia	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2
Worms	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...	1	1
Unknown	48	43	11	8	5	12	6	3	4	2	..	5	5	7	3	6	8	8	5	7	9	9	11	12	3	11	1	2	119	135	254

TABLE X.—CLASSIFICATION AND PERCENTAGE, 1879.

Showing what part of the Mortality in the whole State, and in each Division is ascribed to each cause and class of causes.

NUMBER OF DEATHS IN EACH DIVISION OF THE STATE.								CAUSES OF DEATH.	Percentage in the Whole State.	PERCENTAGE OF DEATHS IN EACH DIVISION.						
Bristol County.	Kent County.	Newport County, Towns.	Newport City.	Providence County, Towns.	Providence City.	Washington County.	Whole State.			Washington County.	Providence City.	Providence County, Towns.	Newport City.	Newport County, Towns.	Kent County.	Bristol County.
150	311	95	264	1.377	2,026	249	4,472	All Causes	.....	.....	.....	.....	.....	.....	.....	.....
141	277	91	239	1,233	2,017	220	4,218	Specified Causes	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
34	80	22	61	314	598	42	1,151	I. ZYMOTIC DISEASES	27.29	19.09	29.65	25.46	25.52	24.18	28.88	24.11
								SPORADIC DISEASES.								
23	29	12	32	159	192	21	468	II. GENERAL OR NOT LOCALIZED	11.09	9.55	9.52	12.90	13.39	13.19	10.47	16.31
19	34	16	45	170	279	21	584	III. NERVOUS SYSTEM	13.85	9.55	13.83	13.78	18.82	17.58	12.28	13.48
25	61	16	53	345	500	64	1,064	IV. RESPIRATORY SYSTEM	25.22	29.09	24.79	27.98	22.18	17.58	22.02	17.73
9	20	5	12	39	114	9	208	V. CIRCULATORY SYSTEM	4.93	4.09	5.65	3.16	5.02	5.49	7.22	6.38
11	12	4	4	52	92	12	187	VI DIGESTIVE SYSTEM	4.43	5.45	4.56	4.22	1.67	4.40	4.33	7.80
1	6	3	3	32	57	11	113	VII. URINARY SYSTEM	2.68	5.00	2.83	2.60	1.25	3.30	2.17	.71
1	6	...	1	6	19	4	37	VIII. GENERATIVE SYSTEM	.88	1.82	.95	.49	.42	.....	2.17	.71
2	...	...	2	12	24	4	44	IX. LOCOMOTIVE SYSTEM	1.04	1.82	1.19	.97	.84	.....	.....	1.42
...	1	...	...	.....	2	...	3	X. INTEGUMENTIVE SYSTEM	.07	.....	.10	.....	.....	.....	.36	.....
14	19	8	18	69	67	25	220	XI. OLD AGE	5.22	11.36	3.32	5.60	7.54	8.79	6.85	9.93
2	9	5	8	35	73	7	139	XII. EXTERNAL CAUSES	3.30	3.18	3.61	2.84	3.35	5.49	3.25	1.42

								I. ZYMOTIC DISEASES.								
...	...	1	...	.....	.....	...	1	Carbuncle	.02	.....	.....	.....	.....	1.10	.....	.....
...	...	...	...	1	.....	...	1	Chicken Pox	.02	.....	.....	.08	.....	.....	.....	.....
8	16	6	15	51	59	6	161	Cholera Infantum	3.81	2.73	2.92	4.14	6.27	6.59	5.77	5.67
...	...	...	1	2	5	...	8	Cholera Morbus	.19	.....	.25	.16	.42	.....	.....	.....
3	6	...	15	25	43	4	96	Croup	2.28	1.82	2.13	2.03	6.27	.....	2.17	2.13
1	3	1	2	14	32	...	53	Diarrhœa	1.26	.....	1.58	1.14	.84	1.10	1.08	.71
7	19	2	18	95	106	12	259	Diphtheria	6.14	5.45	5.25	7.71	7.54	2.20	6.85	4.96
8	3	4	3	13	10	3	44	Dysentery	1.04	1.36	.50	1.05	1.25	4.40	1.08	5.67
...	1	1	1	8	10	...	21	Erysipelas	.50	.....	.50	.65	.42	1.10	.36	.....
...	3	...	1	6	.....	...	10	Fever	.24	.....	.....	.49	.42	.....	1.08	.....
...	1	...	...	.....	.....	...	1	Fever, Gastric	.02	.....	.....	.....	.....	.....	.36	.....
...	1	...	1	1	6	...	9	Fever, Puerperal	.21	.....	.30	.08	.42	.....	.36	.....
4	9	4	1	37	40	6	101	Fever, Typhoid and Typhus	2.39	2.73	1.98	3.00	.42	4.40	3.25	2.84
...	...	...	...	1	.....	1	2	Fever, Remittent	.05	.45	.....	.08	.....	.....	.....	.....
...	11	...	1	12	15	4	43	Hooping Cough	1.02	1.82	.74	.97	.42	.....	3.97	.....
...	...	...	...	3	1	..	4	Influenza	.09	.....	.05	.24	.....	.....	.....	.....
...	...	...	1	2	7	...	10	Meningitis, Cerebro-Spinal	.24	.....	.35	.16	.42	.....	.....	.....
...	...	...	...	2	2	...	4	Pyæmia	.09	.....	.10	.16	.....	.....	.....	.....
3	6	3	1	37	255	6	311	Scarlatina	7.37	2.73	12.64	3.00	.42	3.30	2.17	2.13
...	...	...	...	2	.....	...	2	Septicæmia	.05	.....	.....	.16	.....	.....	.....	.....
...	1	...	...	2	7	...	10	Syphilis	.24	.....	.35	.16	.....	.....	.36	.....
34	80	22	61	314	598	42	1,151	Total	27.29	19.09	29.65	25.46	25.52	24.18	28.88	24.11
								II. GENERAL OR NOT LOCALIZED.								
...	2	...	2	4	6	..	14	Abscesses	.33	.....	.30	.32	.84	.....	.72	.....
...	...	...	1	4	2	...	7	Anæmia	.17	.....	.10	.32	.42	.....	.....	.....
9	6	3	6	28	66	7	125	Cancer	2.96	3.18	3.27	2.27	2.51	3.30	2.17	6.38
...	...	...	...	.....	1	...	1	Cancrum Oris	.02	.....	.05	.....	.....	.....	.....	.....
6	2	2	10	48	29	2	99	Debility	2.35	.91	1.44	3.89	4.18	2.20	.72	4.25

TABLE X.—CLASSIFICATION AND PERCENTAGE, 1879.—Continued.

NUMBER OF DEATHS IN EACH DIVISION OF THE STATE.										PERCENTAGE OF DEATHS IN EACH DIVISION.						
Bristol County.	Kent County.	Newport County, Towns.	Newport City.	Providence County, Towns.	Providence City.	Washington County.	Whole State.	CAUSES OF DEATH.	Percentage in the Whole State.	Washington County.	Providence City.	Providence County, Towns.	Newport City.	Newport County, Towns.	Kent County.	Bristol County.
3	5	3	4	.26	4	5	50	Dropsy	1.19	2.27	.20	2.11	1.67	3.30	1.81	2.13
...	1	1	...	2	8	1	13	Gangrene	.31	.45	.40	.16	......	1.10	.36	......
1	2	1	1	9	3	...	17	Hemorrhage	.40	......	.15	.73	.42	1.10	.72	.71
...	1	...	...	3	.	2	6	Inflammation	.14	.91	......	.24	......	......	.36	......
...	...	...	...	.....	1	...	1	Leucocythæmia	.02	......	.05	......	......	......	......	......
...	2	...	1	3	12	1	19	Malformation	.45	.45	.59	.24	.42	......	.72	......
2	...	...	6	13	28	. .	49	Marasmus	1.16	......	1.39	1.05	2.51	... ..	......	1.42
...	...	1	...	.....	......	...	1	Rachitis	.02	......	......	......	......	1.10	......	.....
...	...	...	...	7	5	...	12	Scrofula	.28	......	.25	.57	......	.. ...	......	......
...	...	...	...	1	......	...	1	Thrush	.02	......	......	.08	.. ..	......	......	......
2	4	...	1	8	20	1	36	Tuberculosis	.85	.45	.99	.65	.42	.....	1.44	1.42
...	4	1	...	3	7	2	17	Tumors	.40	.91	.35	.24	......	1.10	1.44	... ..
23	29	12	32	159	192	21	468	Total	11.09	9.55	9.52	12.90	13.39	13.19	10.47	16.31
								III. NERVOUS SYSTEM.								
3	4	4	17	45	58	6	137	Apoplexy	3.24	2.73	2.88	3.65	7.12	4.40	1.44	2 13
...	4	1	3	6	12	...	26	Brain, Congestion of	.62	......	59	.49	1.25	1.10	1.44	... ..
1	1	3	1	22	23	1	52	Brain, Diseases of	1.23	.45	1.14	1.78	.42	3.30	.36	.71

2	8	...	7	22	40	...	79	Brain, Inflammation of	1.88	...	1.98	1.78	2.93	...	2.89	1.42
1	6	1	10	25	59	2	104	Convulsions and Fits	2.47	.91	2.92	2.03	4.18	1.10	2.17	.71
...	1	...	...	...	2	...	3	Delirium Tremens	.07	...	.10	...	...	...	.36	...
1	1	...	...	3	6	2	13	Epilepsy	.31	.91	.30	.24	...	...	.36	.71
2	4	1	2	13	35	...	57	Hydrocephalus	1.36	...	1.73	1.05	.84	1.10	1.44	1.42
...	...	...	...	5	11	1	17	Insanity	.40	.45	.54	.41	...	...	...	...
...	...	...	...	1	...	5	6	Meningitis, Spinal	.14	2.27	...	.08	...	...	...	...
...	...	...	...	1	...	...	1	Neuralgia	.02	...	...	.08	...	...	...	...
9	5	6	2	26	31	4	83	Paralysis	1.97	1.82	1.54	2.11	.84	6.59	1.81	6.38
...	...	...	3	1	2	...	6	Tetanus and Tris. Nascentium	.14	...	.10	.08	1.25	...	...	...
19	34	16	45	170	279	21	584	Total	13.85	9.55	13.83	13.78	18.82	17.58	12.28	13.48
								IV. RESPIRATORY SYSTEM.								
...	1	...	1	8	3	...	13	Asthma	.31	...	.15	.65	.42	...	.36	...
1	1	...	5	21	34	...	62	Bronchitis	1.47	...	1.68	1.70	2.09	...	.36	.71
...	...	...	1	3	1	...	5	Catarrh	.12	...	.05	.24	.42	...	...	...
16	38	10	35	197	293	48	637	Consumption	15.09	21.83	14.53	15.98	14.64	10.99	13.72	11.35
...	2	...	...	2	...	...	4	Dropsy of Chest	.09	...	...	.16	...	...	.72	...
...	1	2	...	2	3	...	8	Hemorrhage from Lungs	.19	...	.15	.16	...	2.20	.36	...
...	...	...	...	1	1	...	2	Laryngitis	.05	...	.05	.08	...	...	...	...
1	...	...	...	7	4	...	12	Lungs, Disease of	.28	...	.20	.57	...	...	...	.71
...	...	...	...	...	1	...	1	Pharyngitis	.05	...	.05	...	...	...	...	...
6	3	...	...	1	4	1	9	Pleurisy	.21	.45	.20	.08	...	...	1.08	...
6	15	4	11	94	142	14	286	Pneumonia	6.78	6.36	7.03	7.63	4.60	4.40	5.42	4.25
1	...	...	...	9	14	1	25	Pneumonia, Congestion of Lungs	.59	.45	.69	.73	...	...	...	.71
25	61	16	53	345	500	64	1,064	Total	25.22	29.09	24.79	27.98	22.18	17.58	22.02	17.73
								V. CIRCULATORY SYSTEM.								
...	...	...	...	...	1	...	1	Aneurism	.02	...	.05	...	...	...	...	...
...	...	...	...	...	1	...	1	Aorta, Disease of	.02	...	.05	...	...	...	...	...

TABLE X.—CLASSIFICATION AND PERCENTAGE, 1879.—Continued.

NUMBER OF DEATHS IN EACH DIVISION OF THE STATE.										PERCENTAGE OF DEATHS IN EACH DIVISION.						
Bristol County.	Kent County.	Newport County, Towns.	Newport City.	Providence County, Towns.	Providence City.	Washington County.	Whole State.	CAUSES OF DEATH.	Percentage in the Whole State.	Washington County.	Providence City.	Providence County, Towns.	Newport City.	Newport County, Towns.	Kent County.	Bristol County.
...	...	...	...	1	1	...	2	Embolism and Thrombosis	.05	...	.05	.08	...	...	...	...
8	20	4	12	38	111	9	202	Heart, Diseases of	4.78	4.09	5.50	3.08	5.02	4.40	7.22	5.67
1	...	1	...	...	...	...	2	Phlebitis	.05	...	...	...	...	1.10	...	.71
9	20	5	12	39	114	9	208	Total	4.93	4.09	5.65	3.16	5.02	5.49	7.22	6.38
								VI. DIGESTIVE SYSTEM.								
...	...	...	...	2	...	...	2	Bowels, Diseases of	.05	...	...	.16	...	...	...	...
3	1	...	...	1	2	2	9	Colic	.21	.91	.10	.08	...	...	.36	2.13
...	4	3	1	9	16	1	34	Enteritis	.81	.45	.79	.73	.42	3.30	1.44	...
1	1	...	...	4	6	...	12	Hernia	.28	...	.30	.32	...	...	.36	.71
...	...	...	...	1	1	...	2	Intussusception	.05	...	.05	.08	...	...	...	...
...	1	...	...	1	1	...	3	Jaundice	.07	...	.05	.08	...	...	.36	...
4	3	1	1	13	21	6	49	Liver, Diseases of	1.17	2.73	1.04	1.05	.42	1.10	1.08	2.84
2	...	...	1	6	14	1	24	Peritonitis	.57	.45	.69	.49	.42	...	...	1.42
...	1	...	1	7	15	2	26	Stomach, Diseases of	.62	.91	.74	.57	.42	...	.36	...
...	...	...	...	...	3	...	3	Tabes Mesenterica	.07	...	.15	...	...	...	...	...
1	1	...	...	7	13	...	22	Teething	.52	...	.64	.57	...	...	.36	.71

...	...	...	...	1	.....	...	1	Worms	.02	......	......	.08	......	......	......	......
11	12	4	4	52	92	12	187	Total	4.43	5.45	4.56	4.22	1.67	4.40	4.33	7.80
								VII. URINARY SYSTEM.								
...	1	...	...	2	9	1	13	Bladder, Diseases of	.31	.45	.45	.16	.....	.....	.36	.....
...	2	2	2	5	3	1	15	Diabetes	.36	.45	.15	.41	.84	2.20	.72	.....
1	3	1	...	23	43	8	79	Kidneys, Diseases of	1.88	3.64	2.13	1.86	.....	1.10	1.08	.71
...	...	...	1	1	1	1	4	Prostate, Diseases of	.09	.45	.05	.08	.42	.....	.....	.....
...	...	...	...	1	1	...	2	Uræmia	.05	....	.05	.08	.....	.....	.....	.....
1	6	3	3	32	57	11	113	Total	2.68	5.00	2.83	2.60	1.25	3.30	2.17	.71
								VIII. GENERATIVE SYSTEM.								
1	6	...	1	4	11	3	26	Child-birth	.62	1.36	.54	.32	.42	.....	2.17	.71
...	...	...	...	2	5	1	8	" Puerperal Convulsions	.19	.45	.25	.16	.....	.....	.....	.....
...	...	...	...	.....	1	...	1	Cellulitis, Pelvic	.02	......	.05	.....	.....	.....	.....	.....
...	...	...	...	.....	1	...	1	Menorrhagia	.02	......	.05	.....	.....	.....	.....	.....
...	...	...	...	.....	1	...	1	Phlegmasia Dolens	.02	......	.05	.....	.....	.....	.....	.....
1	6	...	1	6	19	4	37	Total	.88	1.82	.95	.49	.42	....	2.17	.71
								IX. LOCOMOTIVE SYSTEM.								
...	...	...	...	.....	2	...	2	Bone, Diseases of	.05	......	.10	.....	.....	.....	.....	.....
...	...	...	...	2	5	...	7	Hip-Joint, Diseases of	.16	......	.25	.16	.....	.....	.....	.....
2	...	...	2	7	11	2	24	Rheumatism	.57	.91	.54	.57	.84	.....	.....	1.42
...	...	...	...	3	6	2	11	Spine, Diseases of	.26	.91	.30	.24	.....	.....	.....	.....
2	...	...	2	12	24	4	44	Total	1.04	1.82	1.19	.97	.84	.....	.....	1.42

TABLE X.—CLASSIFICATION AND PERCENTAGE, 1879.—Continued.

NUMBER OF DEATHS IN EACH DIVISION OF THE STATE.										PERCENTAGE OF DEATHS IN EACH DIVISION.						
Bristol County.	Kent County.	Newport County, Towns.	Newport City.	Providence County, Towns.	Providence City.	Washington County.	Whole State.	CAUSES OF DEATH.	Percentage in the Whole State.	Washington County.	Providence City.	Providence County, Towns.	Newport City.	Newport County, Towns.	Kent County.	Bristol County.
								X. INTEGUMENTIVE SYSTEM.								
...	1	...	...	.....	2	...	3	Skin, Diseases of	.07	.....	.10	......	......	......	.36	......
...	1	...	...	.....	2	...	3	Total	.07	.....	.10	......	......	......	.36	......
14	19	8	18	71	67	25	220	XI. OLD AGE.	5.22	11.36	3.32	5.60	7.54	8.79	6.85	9.93
								XII. EXTERNAL CAUSES.								
...	4	2	1	7	22	...	36	Accidents (various)	.86	......	1.09	.57	.42	2.20	1.44	......
1	...	...	2	.....	9	1	13	" Burns and Scalds	.31	.45	.45	......	.84	......	......	.71
1	1	2	2	8	6	2	22	" Drowning	52	.91	.30	.65	.84	2.20	.36	.71
...	2	...	1	5	8	. .	16	" Falls	.38	.....	.40	.41	.42	......	.72	......
...	1	...	...	.....	3	1	5	" Poisoning	.12	.45	.15	......	......	......	.36	......
...	1	1	...	3	5	...	10	" Railroad	.24	......	.25	.24	......	1.10	.36	......
...	...	...	...	2	1	...	3	Exposure to cold	.07	......	.05	.16	.. ..	.. ...	......	......
...	...	...	1	4	6	2	13	Intemperance	.31	.91	.30	.32	.42	.....	......	......
...	...	...	1	.....	.....	...	1	Lead Poisoning	.02	......	......	......	.42	......	......	... ..

......	......	......	......	......	1	...	1	Murder	.02	......	.05	......	......	......	......	......
......	......	......	......	......	2	...	2	Neglect	.05	......	.10	......	......	......	......	......
......	......	......	......	5	7	1	13	Suicide	.31	.45	.35	.41	......	......	......	......
......	......	......	......	1	3	...	4	Surgical Operations	.09	......	.15	.08	......	......	......	......
2	9	5	8	35	73	7	139	Total	3.30	3.18	3.61	2.84	3.35	5 49	3.25	1.42

TABLE XI.—OCCUPATIONS AND AGES AT DEATH, 1879.

Showing the Average Age at Death in the several occupations, Providence City being separated from the rest of the State, and ages under twenty being excluded.

OCCUPATIONS.	WHOLE STATE.			PROVIDENCE CITY.			REST OF STATE.		
	Number who Died.	Aggregate Age.	Average Age.	Number who Died.	Aggregate Age.	Average Age.	Number who Died.	Aggregate Age.	Average Age.
I. AGRICULTURE.									
Farmers	177	11,734	66.29	13	747	57.46	164	10,987	66.99
Florists	4	211	52.75	2	92	46.00	2	119	59.50
Gardeners	4	307	76.75	4	307	76.75	...	...	...
Nurserymen	2	96	48.00	1	61	61.00	1	35	35.00
II. PROFESSIONAL AND PERSONAL SERVICES.									
Army & Navy Officers	2	114	57.00	...	...	...	2	114	57.00
Artists	2	64	32.00	...	...	...	2	64	32.00
Barbers	10	330	33.00	5	127	25.40	5	203	40.60
Bill Poster	1	59	59.00	...	...	...	1	59	59.00
Clergymen	9	595	66.11	4	200	50.00	5	395	79.00
Clerks	17	621	36.53	11	367	33.36	6	254	42.33
Coachmen	4	247	61.75	4	247	61.75	...	...	...
Contractor	1	56	56.00	...	...	...	1	56	56.00
Cook	1	29	29.00	1	29	29.00	...	...	...
Dentist	1	55	55.00	...	...	...	1	55	55.00
Editor	1	58	58.00	...	...	...	1	58	58.00
Hostlers	4	131	32.75	2	51	25.50	2	80	40.00
Hotel Keepers	3	145	48.33	1	42	42.00	2	103	51.50
Inventor	1	62	62.00	1	62	62.00	...	...	...
Janitors	4	215	53.75	4	215	53.75	...	...	...
Laborers	212	11,192	52.79	111	5,888	53.04	101	5,304	52.51
Lawyers	5	255	51.00	3	119	39.67	2	136	68.00
Musicians	7	367	52.43	2	95	47.50	5	272	54.40
Physicians	10	697	69.70	1	80	80.00	9	617	68.55
Policemen	2	111	55.50	1	39	39.00	1	72	72.00
Postmaster	1	65	65.00	...	...	...	1	65	65 00
Saloon Keepers	9	379	42.11	5	225	45.00	4	154	38.50
Sheriff	1	56	56.00	...	...	...	1	56	56.00
Soldier	1	36	36.00	...	...	...	1	36	36.00
Stewards	2	107	53.50	2	107	53.50	...	...	...
Students	3	68	22.67	2	41	20.50	1	27	27.00
Surveyors	2	85	42.50	1	25	25.00	1	60	60.00
Teachers	2	144	72.00	2	144	72.00	...	...	...
Undertakers	2	108	54.00	1	34	34.00	1	74	74.00
Waiter	1	75	75.00	1	75	75.00	...	...	...
Watchmen	8	401	50.12	3	144	48.00	5	257	51.40

TABLE XI.—OCCUPATIONS, 1879.—Continued.

OCCUPATIONS.	WHOLE STATE.			PROVIDENCE CITY.			REST OF STATE.		
	Number who Died.	Aggregate Age.	Average Age.	Number who Died.	Aggregate Age.	Average Age.	Number who Died.	Aggregate Age.	Average Age.
III. TRADE AND TRANSPORTATION.									
Agents	2	83	41.50	2	83	41.50	...	...	...
Apothecary	1	34	34.00	...	...	...	1	34	34.00
Book-keepers	20	946	47.30	14	710	50.71	6	236	39.33
Brokers	3	190	63.33	...	...	...	3	190	63.33
Brakeman	1	32	32.00	...	...	...	1	32	32.00
Butchers	7	376	53.71	5	246	49.20	2	130	65.00
Cashier, (Bank and other)	1	79	79.00	...	...	...	1	79	79.00
Expressman	1	59	59.00	...	...	...	1	59	59.00
Fishermen and Oystermen	8	374	46.75	3	133	44.33	5	241	48.20
Grocers	8	472	59.00	7	402	57.43	1	70	70.00
Hackman	1	25	25.00	1	25	25.00	...	...	...
Insurance	4	246	61.50	4	246	61.50	...	...	...
Liquor Dealers	4	186	46.50	3	125	41.67	1	61	61.00
Marketmen	4	208	52.00	2	95	47.50	2	113	56.50
Merchants	41	2,605	63.54	25	1,562	62.08	16	1,043	65.19
Milkman	1	28	28.00	...	...	...	1	28	28.00
Peddlers	9	497	55.22	7	382	54.57	2	115	57.50
Pilot	1	63	63.00	...	...	...	1	63	63.00
Porter	1	51	51.00	1	51	51.00	...	...	...
R. R. Engineer and Fireman	1	64	64.00	1	64	64.00	...	...	...
Sea Captains and Ship Masters	9	608	67.55	3	233	77.67	6	375	62.50
Seamen	14	607	43.36	9	382	42.45	5	225	45.00
Teamsters	7	344	49.14	3	173	57.67	4	171	42.75
Traders and Dealers, (not specified)	14	750	53.57	7	348	49.71	7	402	57.43
IV. MANUFACTURES, MECHANICAL AND MINING INDUSTRIES.									
Assayer	1	69	69.00	1	69	69.00	...	...	...
Bakers	5	338	67.60	2	127	63.50	3	211	70.33
Blacksmiths	16	850	53.13	8	398	49.75	8	452	56.50
Bleacher	1	21	21.00	...	...	...	1	21	21 00
Boiler Makers	5	219	43.80	4	171	42.75	1	48	48.00
Book-binder	1	67	67.00	1	67	67.00	...	...	...
Box Makers	2	54	27.00	1	32	32.00	1	22	22.00
Cabinet Makers	3	110	36.67	3	110	36.67	...	...	...
Calico Printer	1	55	55.00	1	55	55.00	...	...	...
Carpenters	56	3,207	57.27	28	1,589	56.75	28	1,618	57.79

TABLE XI.—OCCUPATIONS, 1879.—Continued.

OCCUPATIONS.	WHOLE STATE.			PROVIDENCE CITY.			REST OF STATE.		
	Number who Died.	Aggregate Age.	Average Age.	Number who Died.	Aggregate Age.	Average Age.	Number who Died.	Aggregate Age.	Average Age.
Carriage Makers....	3	159	53.00	1	35	35.00	2	124	62.00
Cigar Makers.......	2	165	82.50	2	165	82.50	...	.....	.....
Confectioner.......	1	38	38.00	1	38	38.00	...	.....	.....
Coopers............	2	56	28.00	1	28	28.00	1	28	28.00
Cutlers............	2	96	48.00	2	96	48.00	...	.....	....
Designer...........	1	76	76.00	...	.....	.....	1	76	76.00
Draughtsman........	1	23	23.00	...	.....	...	1	23	23.00
Dyer...............	1	85	85.00	1	85	85.00	...	.....	.....
Engineers and Firemen............	8	416	52.00	4	217	54.25	4	199	49.75
Engraver...........	1	51	51.00	1	51	51.00	...	.....	.....
File Cutters.......	2	67	33.50	2	67	33.50	...	.....	.....
Gas Fitters........	3	149	49.67	2	118	59.00	1	31	31.00
Gunsmith...........	1	50	50.00	1	50	50.00	...	.....	.....
Harness Makers and Saddlers........	6	306	51.00	3	138	46.00	3	168	56.00
Jewelers...........	20	793	39.65	18	745	41.39	2	48	24.00
Machinists and Iron Workers........	30	1,579	52.63	15	759	50.60	15	820	54.66
Manufacturers......	13	891	68.54	3	248	82.67	10	643	64.30
Masons.............	15	852	56.80	8	448	56.00	7	404	57.71
Mechanics..........	4	222	55.50	1	64	64.00	3	158	52.66
Moulders...........	6	301	50.17	4	168	42.00	2	133	66.50
Operatives.........	41	1,843	44.95	7	405	57.86	34	1,438	42.29
Overseers and Superintendents......	4	235	58.75	2	114	57.00	2	121	60.50
Painters...........	20	1,017	50.85	13	691	53.16	7	326	46.57
Pattern Makers.....	3	152	50.66	3	152	50.66	...	.....	...
Plumbers...........	3	124	41.33	2	94	47.00	1	30	30.00
Pork Packer........	1	40	40.00	1	40	40.00	...	...	....
Printers...........	7	288	41.14	4	129	32.25	3	159	53.00
Roll Coverers......	2	130	65.00	2	130	65.00	...	.....	....
Rubber Workers.....	5	182	36.40	...	...	.....	5	182	36.40
Sail Maker.........	1	74	74.00	1	74	74.00	...	.....	....
Ship Carpenter.....	1	61	61.00	...	...	....	1	61	61.00
Shoemakers.........	12	785	65.42	4	219	54.75	8	566	70.75
Silversmiths.......	2	89	44.50	2	89	44.50	...	.....	.....
Slater.............	1	50	50.00	1	50	50.00	...	.....	....
Stair Builder......	1	55	55.00	...	.....	.....	1	55	55.00
Stone Cutters......	10	378	37.80	3	101	33.66	7	277	39.57
Stucco Worker......	1	24	24.00	1	24	24.00	...	.....	....
Tinsmiths..........	4	220	55.00	1	25	25.00	3	195	65.00
Tailors............	11	629	57.18	6	331	55.17	5	298	59.60
Tanner.............	1	88	88.00	...	.....	....	1	88	88.00
Umbrella Maker.....	1	24	24.00	...	.....	.....	1	24	24.00

TABLE XI.—OCCUPATIONS, 1879.—Concluded.

OCCUPATIONS.	WHOLE STATE.			PROVIDENCE CITY.			REST OF STATE.		
	Number who Died.	Aggregate Age.	Average Age.	Number who Died.	Aggregate Age.	Average Age.	Number who Died.	Aggregate Age.	Average Age.
Upholsterers........	3	105	35.00	2	71	35.50	1	34	34.00
Watchmakers........	3	161	53.67	1	25	25.00	2	136	68.00
Wheelwrights	4	272	68.00	2	123	61.50	2	149	74.50
Wood Carver	1	32	32.00	1	32	32.00	...	.....	.....
Wool Sorter	1	33	33.00	1	33	33.00	...	.....	.....
V. FEMALES.									
Box Maker.........	1	21	21.00	...	.....	.....	1	21	21.00
Clerk..............	1	28	28.00	1	28	28.00	...	.....	.....
Cooks...............	3	198	66.00	1	63	63.00	2	135	67.50
Dressmakers and Seamstresses......	6	270	45.00	2	62	31.00	4	208	52.00
Nnrses..... ...	2	166	83.00	1	96	96.00	1	70	70 00
Operatives..........	25	882	35.28	6	173	28.83	19	709	37.32
Tailoresses	2	77	38.50	1	32	32.00	1	45	45.00
Teachers...........	4	248	62.00	1	90	90.00	3	158	52.67
Upholsterer........	1	34	34.00	1	34	34.00	...	.....	.....

TABLE XI.—RECAPITULATION BY CLASSES.

OCCUPATIONS.	WHOLE STATE.			PROVIDENCE CITY.			REST OF STATE.		
	Number who Died.	Aggregate Age.	Average Age.	Number who Died.	Aggregate Age.	Average Age.	Number who Died.	Aggregate Age.	Average Age.
I. AGRICULTURE.	187	12,348	66.03	20	1,207	60.35	167	11,141	66.71
II. PROFESSIONAL AND PERSONAL SERVICES......	329	16,927	51.45	168	8,356	49.74	161	8,571	53.23
III. TRADE AND TRANSPORTATION.....	163	8,927	54.77	97	5,260	54.23	66	3,667	55.56
IV. MANUFACTURES, MECHANICAL AND MINING INDUSTRIES....... ..	357	18,456	51.70	179	9,090	50.78	178	9,366	52.62
V. FEMALES....	45	1,924	42.75	14	578	41.29	31	1,346	43.42
ALL CLASSES. ..	1,081	58,582	54.19	478	24,491	51.24	603	34,091	56.54

Table XII.—OCCUPATIONS AND CAUSES OF DEATH, 1879.

Deaths at ages under twenty years being excluded.

OCCUPATIONS.	Whole Number of given causes.	Abscesses.	Accidents.	Apoplexy and Paralysis.	Bladder, Disease of.	Brain, Diseases of.	Bronchitis.	Cancer.	Cholera Morbus.	Colic.	Consumption.	Debility.	Diabetes.	Diarrhœa.	Dropsy.	Dysentery.	Enteritis.	Epilepsy.	Erysipelas.	Fevers.	Gangrene.	Heart, Diseases of.	Hemorrhage.	Hernia.	Insanity.	Intemperance and Delirium Tremens.	Kidneys, Diseases of.	Liver, Diseases of.	Old Age.	Peritonitis.	Pneumonia.	Rheumatism.	Stomach, Diseases of.	Suicide.	Tuberculosis.	Tumor.
I. AGRICULTURE.																																				
Farmers*	174	2	4	21	2	4	..	6	..	..	23	2	3	1	13	..	1	..	4	2	..	17	3	1	1	2	4	8	22	1	18	2	..	..	..	..
Florists	4	..	..	1	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Gardeners	4	..	..	..	2	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
Nurserymen	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..
II. PROFESSIONAL AND PERSONAL SERVICES.																																				
Army and Navy Officers	2	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
Artists	2	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Barbers	10	..	..	1	..	..	..	..	..	..	3	..	..	..	..	..	..	..	..	2	..	2	..	..	..	..	..	..	..	..	1	..	..	1	..	..
Bill Poster	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Clergymen	8	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	1	..	1	..	2	..	..	..	..	..
Clerks*	17	..	..	1	..	1	1	1	..	..	6	..	..	..	..	..	..	..	..	1	..	1	..	..	1	..	1	..	..	..	1	..	..	1	..	..
Coachmen	4	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	1	..	..	..	..	..	..	..	..	..
Cook	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Dentist	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Editor	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hostlers	4	..	..	1	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hotel Keepers	3	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..
Inventors	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
Janitors*	4	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
Laborers*	200	..	12	14	1	3	..	8	1	1	52	1	1	1	3	3	..	2	2	7	2	18	2	..	1	2	8	2	18	..	18	3	3	1	3	..
Lawyers	5	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	1	..	..	..	..	..	..	..	..
Musicians	7	..	1	3	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..
Physicians	9	..	1	1	..	..	..	..	..	..	..	2	1	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	1	1	..	..	..
Policemen	2	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..
Postmaster	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Saloon Keepers*	9	..	..	..	1	..	..	1	..	..	1	..	..	..	..	..	..	..	1	..	1	1	..	..	..	..	..	1	..	..	1	..	..	..	..	..

OCCUPATIONS.	Whole Number of given causes.	Abscesses.	Accidents.	Apoplexy and Paralysis.	Bladder, Disease of.	Brain, Diseases of.	Bronchitis.	Cancer.	Cholera Morbus.	Colic.	Consumption.	Debility.	Diabetes.	Diarrhœa.	Dropsy.	Dysentery.	Enteritis.	Epilepsy.	Erysipelas.	Fevers.	Gangrene	Heart, Diseases of.	Hemorrhage.	Hernia.	Insanity.	Intemperance and Delirium Tremens.	Kidneys, Diseases of.	Liver, Diseases of.	Old Age.	Peritonitis.	Pneumonia.	Rheumatism.	Stomach, Diseases of.	Suicide.	Tuberculosis.	Tumor.
Sheriff	1					1																														
Stewards	2																								1				1							
Students	3										1									1							1									
Surveyors	2			1							1																									
Teachers	2						2																													
Undertakers	2						1				1																									
Waiter	1										1																									
Watchmen	8			1							3				1		1														2					
III. TRADE AND TRANSPORTATION.																																				
Agents	2										1																						1			
Apothecary	1		1																																	
Book-keepers	20			2		1	1				7									1		2	1				2		1						2	
Brokers	2																			1									1							
Brakeman	1		1																																	
Butchers	6		1								3	1																			1					
Cashier (Bank and other)	1																					1														
Expressman	1																														1					
Fishermen and Oystermen	8			1							3	1								2							1									
Grocers	7		1	1		2																1									1				1	
Hackman	1			1																																
Insurance	4			1							1									1		1														
Liquor Dealers	4										1											1					1	1								
Marketman	4			1				1																			2									
Merchants	10			7		2		1			7		1			1		1			1	6			1		1	1	5	1	1		2	1		
Milkman	1																																		1	
Peddlers*	7				1						2			1															1		1					
Pilot	1												1																							
Porter	1										1																									
R. R. Engineer and Fireman	1																														1					
Sea Captains and Ship Masters	8			1		1		2			1							1											2							
Seamen	13		2	1							6			1												1	1				1					

TABLE XII.—OCCUPATIONS AND CAUSES OF DEATH, 1879.—Continued.

OCCUPATIONS.	Whole Number of given causes.	Abscesses.	Accidents.	Apoplexy and Paralysis.	Bladder, Disease of.	Brain, Diseases of.	Bronchitis.	Cancer.	Cholera Morbus.	Colic.	Consumption.	Debility.	Diabetes.	Diarrhœa.	Dropsy.	Dysentery.	Enteritis.	Epilepsy.	Erysipelas.	Fevers.	Gangrene.	Heart, Diseases of.	Hemorrhage	Hernia.	Insanity.	Intemperance and Delirium Tremens.	Kidneys, Diseases of.	Liver, Diseases of.	Old Age.	Peritonitis.	Pneumonia.	Rheumatism.	Stomach, Diseases of.	Suicide.	Tuberculosis.	Tumor.
Teamsters*	7	..	1	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	..	..	..	1	..	1	..	..	..
Traders and Dealers (not specified)	13	..	2	2	..	..	..	..	..	..	2	..	..	..	1	..	..	..	1	1	..	1	1	..	..	....	..	1	..	..	1	..	..	..	..	..
IV. MANUFACTURES, MECHANICAL AND MINING INDUSTRIES.																																				
Assayer	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	..	..	..	..	..	..	..	..	..
Bakers	5	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	1	..	....	..	..	..	..	1	..	..	..	..	..
Blacksmiths	16	..	1	1	..	..	..	..	..	..	5	..	..	..	..	..	..	..	..	1	..	1	..	..	..	2	1	1	1	..	1	..	1	..	..	..
Bleacher	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	..	..	..	..	..	..	..	..	..	..
Boiler Makers	5	..	..	1	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..
Book-binder	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	..	..	..	..	..	..	..	..	..	..
Box Makers	2	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	..	..	..	..	..	..	..	..	..	..
Cabinet Makers	2	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	....	..	..	..	..	..	..	..	..	..	..
Calico Printer	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	....	..	..	..	..	..	..	..	..	..	..
Carpenters*	54	..	2	2	1	5	..	5	1	..	12	..	..	..	1	..	..	..	..	1	1	3	..	..	1	...	3	2	5	2	5	..	..	..	..	.
Carriage Makers	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	..	1	..	..	1	..	..	..	..	..
Cigar Makers	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	....	..	..	1	..	..	..	..	..	..	..
Confectioner	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	..	..	..	..	..	..	..	..	..	..
Coopers	2	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	..	..	..	..	..	..	..	..	..	..
Cutlers	2	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	..	..	..	..	..	..	..	..	..	..
Designer	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	..	..	..	..	..	..	..	..	..	..
Draughtsman	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	..	..	..	..	..	..	..	..	..	..
Dyer	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	..	..	1	..	..	..	..	..	..	..
Engineers and Firemen*	8	..	..	1	..	..	..	1	..	..	2	..	..	..	..	..	..	..	..	..	..	2	..	..	..	....	1	..	..	..	..	..	..	..	..	..
Engraver	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	..	..	..	..	..	..	..	..	..	..
File Cutters	2	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	..	..	..	..	..	..	..	..	..	..
Gas Fitters	3	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	..	..	..	..	..	..	..	..	1
Gunsmith	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	..	..	..	..	..	..	..	..	..	..
Harness Makers and Saddlers	6	..	1	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	....	..	..	..	..	..	..	2	..	..	..
Jewelers	20	..	1	..	..	..	..	2	..	..	9	..	..	..	..	..	..	1	..	1	..	1	1	..	..	....	..	1	..	..	1	..	1	1	..	..

OCCUPATIONS.	Whole Number of given causes.	Abscesses.	Accidents.	Apoplexy and Paralysis.	Bladder, Disease of.	Brain, Diseases of.	Bronchitis.	Cancer.	Cholera Morbus.	Colic.	Consumption.	Debility.	Diabetes.	Diarrhœa.	Dropsy.	Dysentery.	Enteritis.	Epilepsy.	Erysipelas.	Fevers.	Gangrene.	Heart, Diseases of.	Hemorrhage.	Hernia.	Insanity.	Intemperance and Delirium Tremens.	Kidneys, Diseases of.	Liver, Diseases of.	Old Age.	Peritonitis.	Pneumonia.	Rheumatism.	Stomach, Diseases of.	Suicide.	Tuberculosis.	Tumor.
Machinists and Iron Workers*	29	1	..	4	..	2	..	1	..	..	8	..	..	..	..	..	..	..	..	1	..	4	1	..	..	....	1	..	3	..	1	..	1	..	1	..
Manufacturers	13	..	1	3	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	2	..	2	1	..	..	....	..	..	2	..	..	..	..	..	..	..
Masons*	13	..	1	2	..	2	..	1	..	..	2	1	..	..	..	..	..	..	..	..	1	..	..	..	..	....	..	..	1	..	2	..	..	..	..	..
Mechanics	3	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..
Moulders	6	..	..	2	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	..	..	..	..	1	..	..	..	..	..
Operatives*	36	1	1	1	..	..	2	2	..	1	10	..	..	..	..	1	2	..	..	..	1	2	..	..	1	....	5	..	..	..	4	1	..	..	1	..
Overseers and Superintendents*	4	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	..	..	..	..	..	..	..	..	1	..
Painters	19	..	1	7	..	..	..	1	..	..	5	..	..	..	1	..	..	..	..	..	..	1	..	..	..	....	..	1	..	..	2	..	..	..	..	..
Pattern Makers	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	..	..	....	..	..	..	..	..	..	..	..	..	..
Plumbers	3	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	....	..	..	..	..	..	..	..	..	..	..
Pork Packer	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	..	..	..	..	1	..	..	..	..	..
Printers	7	..	..	1	..	..	..	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	..	..	1	..	..	1	..	..	..
Roll Coverer	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	..	..	..	..	1	..	..	..	..	..
Rubber Workers	5	..	..	1	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	..	..	..	..	1	..	..	..	1	..
Sail Maker	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	....	..	..	..	..	..	..	..	..	..	..
Shoemakers	11	..	..	1	..	..	..	..	..	..	3	..	..	..	..	..	..	..	1	1	..	..	..	..	..	1	..	..	3	..	1	..	..	..	..	..
Silversmiths	2	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..
Slater	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	..	..	..	..	..	..	..	..	..	..
Stair Builder	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	....	..	..	..	..	..	..	..	..	..	..
Stone Cutters	8	..	..	1	..	..	..	..	..	..	5	1	..	..	..	..	..	..	..	1	..	..	..	..	..	....	..	..	..	..	..	..	..	..	..	..
Stucco Worker	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	..	..	..	..	..	..	..	..	..	..
Tailors	11	..	..	2	1	1	..	..	..	..	2	..	..	1	..	1	..	..	..	..	..	..	..	..	..	....	..	..	..	..	1	1	..	..	1	..
Tinsmiths	4	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	....	..	1	..	..	..	..	..	..	..	..
Umbrella Maker	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	....	..	..	..	..	..	..	..	..	..	..
Upholsterers	3	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	1	..	..	....	..	..	..	..	..	..	..	..	..	..
Watchmakers	3	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	....	..	..	..	..	..	1	..	..	..	..
Wheelwrights	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	1	1	..	..	..	..	..	..	..	..	..	..
Wood Carver	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	..	..	..	..	1	..	..	..	..	..
Wool Sorter	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	..	..	..	..	..	..	..	..	..	..
V. FEMALES.																																				
Box Maker	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	..	..	..	..	..	..	..	..	..	..

TABLE XII.—OCCUPATIONS AND CAUSES OF DEATH, 1879.—Continued.

OCCUPATIONS.	Whole Number of given causes.	Abscesses.	Accidents.	Apoplexy and Paralysis.	Bladder, Disease of.	Brain, Diseases of.	Bronchitis.	Cancer.	Cholera Morbus.	Colic.	Consumption.	Debility.	Diabetes.	Diarrhœa.	Dropsy.	Dysentery.	Enteritis.	Epilepsy.	Erysipelas.	Fevers.	Gangrene.	Heart, Diseases of.	Hemorrhage.	Hernia.	Insanity.	Intemperance and Delirium Tremens.	Kidneys, Diseases of.	Liver, Diseases of.	Old Age.	Peritonitis.	Pneumonia.	Rheumatism.	Stomach, Diseases of.	Suicide.	Tuberculosis.	Tumor.
Cooks	2	..	..	1	.	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	..	..	..	..	..	..	..	..	..	..
Dressmakers and Seamstresses	6	..	..	2	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	1	..	..	..	..	..	....	..	..	1	..	..	..	..	..	..	..
Nurses	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	..	..	1	..	..	..	..	..	..	..
Operatives	25	..	..	2	..	1	..	..	..	..	14	..	..	1	..	..	..	..	..	1	..	..	..	..	..	...	2	..	..	1	3	..	..	..	..	..
Tailoresses	2	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	..	..	..	..	..	..	..	..	..	..
Teachers	4	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	..	..	1	..	..	..	..	..	..	1
Upholsterer	1	..	..	.	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	..	..	..	..	..	..	..	..	..	..

TABLE XII.—RECAPITULATION BY CLASSES.

*OCCUPATIONS.	Whole Number of given causes.	Abscesses.	Accidents.	Apoplexy and Paralysis.	Bladder, Disease of.	Brain, Diseases of.	Bronchitis.	Cancer.	Cholera Morbus.	Colic.	Consumption.	Debility.	Diabetes.	Diarrhœa.	Dropsy.	Dysentery.	Enteritis.	Epilepsy.	Erysipelas.	Fevers.	Gangrene.	Heart, Diseases of.	Hemorrhage.	Hernia.	Insanity.	Intemperance and Delirium Tremens.	Kidneys, Diseases of.	Liver, Diseases of.	Old Age.	Peritonitis.	Pneumonia.	Rheumatism.	Stomach, Diseases of.	Suicide.	Tuberculosis.	Tumor.
I. AGRICULTURE	177	2	4	22	4	4	1	6	..	..	25	2	3	1	13	..	1	..	4	4	..	17	3	1	1	2	5	8	22	1	18	2	..	1	..	..
II. PROFESSIONAL AND PERSONAL SERVICES	303	..	15	27	2	6	4	11	1	1	79	3	3	1	4	3	2	2	3	12	3	31	2	..	4	2	15	4	21	..	27	4	4	4	3	..
III. TRADE AND TRANSPORTATION	152	..	9	18	1	6	1	4	..	..	37	2	2	2	1	1	..	2	1	6	1	13	2	..	1	1	9	3	10	1	9	..	4	1	4	..
IV. MANUFACTURES, MECHANICAL AND MINING INDUSTRIES	333	2	14	36	2	13	3	15	1	2	87	3	1	2	3	3	2	1	2	8	4	29	5	2	4	7	14	7	17	3	27	3	4	1	5	1
V. FEMALES	42	..	1	6	..	1	..	2	..	..	19	..	..	1	..	..	.	..	..	2	..	..	..	..	..	....	2	.	3	1	3	..	..	..	..	1
ALL CLASSES	1,007	4	43	109	9	30	9	38	2	3	247	10	9	7	21	7	5	5	10	32	8	90	12	3	10	12	45	22	73	6	84	9	12	7	12	2

* In Class I., Farmers, one, Disease of Prostate; one, Surgical Operation; one, Fit; one, Pleurisy; one, Skin Disease of; one, Meningitis, Cerebro-Spinal; one, Scarlatina.

In Class II., one Clerk, Spine Disease of; one Saloon Keeper, Pleurisy; one Janitor, Spine Disease of; two Laborers, Asthma; two Laborers, Pleurisy; two Laborers, Surgical Operation; one Laborer, Scarlatina.

In Class III., one Peddler, Asthma; one Teamster, Laryngitis.

In Class IV., two Carpenters, Tetanus; one Engineer, Scarlatina; one Machinist, Spine Disease of; one Mason, Fit; one Operative, Anæmia; one Overseer, Phlebitis.

RESULTS AND OBSERVATIONS, 1879.

There were recorded in the State of Rhode Island during the year 1879, six thousand three hundred and fifty (6,350) births; two thousand three hundred and ninety-six (2,396) marriages; and four thousand four hundred and seventy-two (4,472) deaths.

TABLE XIII.

Presenting the general results of Registration, in the State, during each of the last twenty-six years.

Year.	Whole Number of Births.	Still-born.	Living Births.	Marriages.	Deaths.
1854	2,105	78	2,027	1,047	1.720
1855	2,926	124	2,802	1,375	1,846
1856	2,906	183	2,723	1,535	2,042
1857	4,026	185	3,841	1,526	2.325
1858	4,263	177	4,086	1,438	2.616
1859	4,500	177	4,323	1,672	2,270
1860	4,660	167	4,493	1,748	2,686
1861	4,840	146	4,694	1,533	2,927
1862	4,125	123	4,002	1,450	2.591
1863	3,691	111	3,580	1,618	3,207
1864	3,892	138	3,754	1,844	3,360
1865	3,955	177	3,778	1,896	3,405
1866	4,902	172	4,730	2,318	2,970
1867	5.127	163	4,964	2,344	2,889
1868	5,372	212	5,160	2,285	2,912
1869	5,245	220	5,025	2,289	3,382
1870	5,215	234	4,981	2,362	3,238
1871	5,678	223	5,455	2,336	3,344
1872	6,143	202	5,941	2,537	4,247
1873	6,022	228	5,794	2,630	4,403
1874	6,466	277	6,189	2,541	4,229
1875	6,508	246	6,262	2,485	4,317
1876	6,329	224	6,105	2,253	4,116
1877	6,235	242	5,993	2,282	4,450
1878	6,714	248	6,466	2,324	4,441
1879	6,350	216	6,134	2,396	4,472

The aggregates of the whole period of twenty-six years are as follows: Whole number of births, 128,195, of which 4,893 were still-born, and 123,302 were living children.

Of marriages, there were recorded 52,058, or 104,116 persons married; and the deaths of 84,405 persons.

On the next page the usual Table is given, showing a comparison of the births, marriages and deaths, with the population, in each town in the State, for the year 1879.

Table XIV.

BIRTHS, MARRIAGES AND DEATHS IN RHODE ISLAND, IN 1879, COMPARED WITH THE POPULATION BY THE CENSUS OF 1880.

TOWNS AND DIVISIONS OF THE STATE.	Population in 1880.	Births in 1879.	To population one birth in	Marriages in 1879.	To population one person married in	Deaths in 1879.	Of population one death in	Deaths in each 100 of the population.
Barrington	1,359	19	71.05	11	61.77	12	113.25	.88
Bristol	6,028	135	44.59	40	75.35	82	73.51	1.36
Warren	4,008	86	46.60	43	46.61	56	71.57	1.39
Bristol County	11,395	240	47.48	94	60.61	150	75.91	1.32
Coventry	4,520	75	60.27	28	80.71	64	70.63	1.42
East Greenwich	2,887	56	51.55	36	40.09	42	68.74	1.45
West Greenwich	1,018	24	42.29	6	84.83	22	46.27	2.16
Warwick	12,167	277	34.92	101	60.23	183	66.49	1.50
Kent County	20,592	432	47.67	171	60.21	311	66.21	1 51
Jamestown	459	6	76.5	4	57.37	2	22.95	.44
Little Compton	1,201	13	92.39	3	200.17	12	100.10	1.00
Middletown	1,139	26	43.81	2	284.75	15	75.8	1.32
New Shoreham	1,214	17	71.41	4	151.80	6	207.33	.49
Portsmouth	1,979	30	65.97	9	109.94	22	89.96	1.11
Tiverton	2,505	48	52.19	25	50.10	38	65.92	1.52
Towns, Newport County	8,497	140	60.69	47	90.39	95	89.94	1.12
Newport City	15,698	303	51.81	122	64.33	264	59.46	1.68
Burrillville	5,716	138	41.42	30	95.27	76	75.22	1.33
Cranston	5,941	113	52.57	11	270.04	121	49.10	2.04
Cumberland	6,445	154	41.85	45	76.61	81	79.57	1.26
East Providence	5,056	168	30.09	27	93.63	93	54.37	1.84
Foster	1,552	25	62.08	43	18.05	23	67.52	1.48
Glocester	2,250	47	47.87	24	46.88	33	68.18	1.47
Johnston	5,765	129	44.69	22	131.02	46	125.20	.80
Lincoln	13,867	283	49.00	75	92.40	190	72.78	1.37
North Providence	1,467	41	35.78	2	367.00	12	122.25	.82
North Smithfield	3,088	85	36.33	29	53.24	39	78.15	1.26
Pawtucket	19,061	483	39.92	172	55.41	319	59.75	1.67
Scituate	3,810	71	53.66	46	41.42	46	82.82	1.21
Smithfield	3,085	61	50.57	11	140.22	24	128.54	.78
Woonsocket	16,055	370	43 39	160	50.17	274	58.76	1.71
Towns, Providence County	93,158	2,268	41.07	697	66.85	1,377	67.65	1.48
Providence City	104,862	2,522	41.58	1,071	48.95	2,026	51.76	1.93
Charlestown	1,117	15	74.47	7	79.78	17	65.77	1.52
Exeter	1,310	31	42 26	13	50.39	16	81.87	1.22
Hopkinton	2,954	55	53.76	41	36.02	26	122.08	.88
North Kingstown	3,949	96	41.14	27	73.13	46	85.85	1.16
South Kingstown	5,125	100	51.25	39	65.72	59	88.56	1.15
Richmond	1,949	48	40.60	7	139.22	21	92.81	1.07
Westerly	6,104	100	61.04	60	50.87	64	92.25	1.08
Washington County	22,508	445	50.58	194	58.01	249	90.39	1.11
Whole State	276,710	6,350	43.58	2,396	57.75	4,472	61.87	1.62

As in preceding years, the proportion of births, marriages and deaths recorded in the several towns, compared with the population of the same, varies very greatly. This has been established as an invariable rule, and holds good, not only in the different towns in the same year, but also in the same towns in different years.

The highest percentage of births to population, according to the returns, was found in the town of East Providence, which reports one to every 30.09 of the inhabitants. This town also returned the highest proportional number of births in 1878, which was one birth to every 26.12 persons.

Following East Providence in a high birth rate, the town of Warwick returns one birth to every 34.92 persons, North Providence one to every 35.78, North Smithfield one to every 36.33, and Pawtucket one birth to every 39.92. In the last named towns, the proportions were higher than last year, with the exception of Pawtucket. It should be remembered that the proportions in this Report are based upon the enumeration by the Census of 1880, and the number of persons in most of the towns being larger than by the Census of 1875, the percentage of the same number, whether of births, marriages or deaths, would thereby be lessened.

The lowest proportion of births to population, was reported from the town of Little Compton, and was one to every 92.39. This town reported the low birth rate of one in every 128.44 in 1878.

Following Little Compton, the town of Jamestown reports one birth in every 76.50 persons, and Charlestown one in every 74.47.

The difference in the birth rate of Newport city in 1878, *i. e.*, one in every 29.68 persons, and the rate in 1879, *i. e.*, one in every 51.81, is quite remarkable.

The proportions of the aggregate births in the different counties, to the aggregate population, were as follows: Bristol, one birth to every 47.48 persons; Kent, one to every 47.67; Newport, one to every 54.61; Providence, one to every 41.33; and Washington, one to every 50.58. For the whole State, the proportion was one birth to every 43.58 persons.

It will be observed, that not only was there a less number of births in each of the counties in 1879 than in 1878, but by reason of the proportions being based on the increased population by the enumeration of 1880, the ratio was more than correspondingly decreased.

As in all previous years, the proportion of persons married, to the population of the different towns in which the events occurred, varied very greatly more than those of either births or deaths. The difference is very plainly shown by comparing the low marriage rates of North Providence, (in which town only two marriages were solemnized during 1879, according to the returns), that is, one person married to every 367 of the population, Middletown, one person married to every 284 persons, and Cranston, one to every 270, with the higher rates of Hopkinton, one person married to every 36 persons in the town, and Foster the extraordinary high rate of one person married in every 18 of the population.

The town of Foster has held supremacy in the order of a high marriage rate, almost invariably, during the whole period of twenty-six years of registration.

It has been before remarked, that the small number of reported marriages in proportion to the population of some of the towns, was by no means a correct indication of the number of persons, residents of those towns, who had ratified a contract of marriage. In North Providence and Cranston, for instance, doubtless a considerable number of the marriages of persons belonging in those towns were, for various reasons, solemnized in the city of Providence.

It is also shown by the returns, that some of the marriages reported from towns having a high marriage rate, were not only of parties residing in other towns, but, in some instances, from other States.

In the town of Foster, 18 out of the 43 marriages reported were of persons of whom all were residents of the State of Connecticut, and seven of the 41 marriages reported from Hopkinton were also wholly of persons resident in that State.

The average ratio of marriage to population of the several towns, when aggregated in counties, is more nearly uniform, although then showing considerable variation.

The proportions of the several counties, and the cities of Providence and Newport, are as follows:

Bristol County	One person married in every 60.6 of the population.
Kent County	One person married in every 60.2 of the population.
Newport County, Towns	One person married in every 90.4 of the population.
Newport City	One person married in every 64.3 of the population.
Newport County	One person married in every 71.6 of the population.
Providence County, Towns	One person married in every 66.8 of the population.
Providence City	One person married in every 48.9 of the population.
Providence County	One person married in every 60.2 of the population.
Washington County	One person married in every 58.0 of the population.
Whole State	One person married in every 57.8 of the population.

The extreme rates of mortality, as reported from the different towns, and shown in the preceding Table, were more variable than usual.

The highest rate was reported from West Greenwich, a town not usually presenting a high death rate, but returning for 1879 the large proportion of one death in every 46.27 of the population, or 21.6 decedents in each one thousand persons. Cranston follows with a proportion of one death in every 49.1 of its inhabitants, or 20.4 in each one thousand. These proportions are larger than in the city of Providence, which reported a death rate of 19.3 decedents in each one thousand.

In regard to Cranston it should be said, however, that the large mortality reported was occasioned by the occurrence of 61 of the 121 deaths returned in the different State Institutions located in that town. But the low death rate of only one in 99 of the population, or about 10 in each one thousand, which would be the proportion after deducting the deaths at the State Farm, is strongly confirmatory of a suspicion that all the deaths elsewhere in the town were not returned.

The same may be said of the low death rates as reported from the towns of Smithfield, North Providence and Johnston. Any town reporting less than twelve decedents in each one thousand of the population, when that population is, to a considerable extent, located in manufacturing villages, cannot reasonably be exempt from the opinion that the returns are incomplete.

The town of Jamestown reports the minimum rate of mortality, that is, one death in every 229.5 of its inhabitants, or 4.4 in each one thousand. New Shoreham follows with one death in every 207, or 4.9 in each one thousand.

The following summary will show the death rate in each of the larger divisions of the State:

Bristol County	13.2 in each one thousand of the population.
Kent County	15.1 in each one thousand of the population.
Towns Newport County	11.2 in each one thousand of the population.
City of Newport	16.8 in each one thousand of the population.
Newport County	14.8 in each one thousand of the population.
Towns Providence County	14.8 in each one thousand of the population.
City of Providence	19.3 in each one thousand of the population.
Providence County	17.2 in each one thousand of the population.
Washington County	11.1 in each one thousand of the population.
Whole State	16.2 in each one thousand of the population.

It has been before observed, that the returns from the different towns of the number of births, marriages and deaths occurring in them respectively, vary so much, one year with another, that no approximate ratio of these events to the population in those towns can be determined, except by a comparison of the average number of each in the returns for a series of years; and that is also especially true of the average age of the decedents in the several towns.

The following Table has been prepared, at a very large expenditure of labor, to show more definitely and correctly the relations of the above events, in each of the several towns, to the population of the same, and also the average age of the decedents in each town, respectively, during a period of ten years.

TABLE XV.

Showing the aggregate number of Births, Marriages and Deaths, in each town and in each county in the State, during the ten years from 1870 to 1879, inclusive, with the annual average and percentage of the same events, and the aggregate and average age of all the decedents in the same towns and counties for the same period of time.

TOWNS AND DIVISIONS OF THE STATE.	Estimated Average Population, 1870 to 1879.	BIRTHS.			MARRIAGES.			DEATHS.				
		Whole No. Births, 10 years. 1870-1879.	Average to population one in every	Per cent.	Whole No. Marriages, 10 years. 1870-1879.	Average to population one person married in every	Per cent.	Whole No. Deaths, 10 years. 1870-1879.	Average to population one in every	Per cent.	Aggregate Age of all.	Average Age of all.
Barrington	1,185	156	75.96	1.31	63	94.06	1.06	142	83.45	1.19	6.123	43.12
Bristol	5,829	1,738	33.54	2.98	405	71.86	1.39	904	64.37	1.55	31,334	34.66
Warren	4,005	724	55.32	1.81	436	45.93	2.18	656	61.05	1.64	20,977	31.98
BRISTOL COUNTY	11,019	2,618	42.09	2.38	904	60.95	1.64	1,702	64.74	1.54	57,434	33.77
Coventry	4,580	754	60.74	1.65	363	63.09	1.58	672	68.15	1.47	27,400	40.77
East Greenwich	3,120	629	49.60	2.02	305	51.15	1.96	500	62.40	1.63	20,083	40.17
West Greenwich	1,034	244	42.79	2.34	75	62.26	1.61	177	58.42	1.71	8,102	45.78
Warwick	11,614	2,498	46.49	2.15	1,063	54.11	1.85	1,461	79.49	1.26	43,589	29.15
KENT COUNTY	20,348	4,125	49.33	2.02	1,806	56.33	1.77	2,810	72.41	1.38	99,174	35.29
Jamestown	488	49	99.59	1.00	22	101.90	.98	42	116.19	.86	2,168	51.62
Little Compton	1,156	187	61.82	1.62	69	83.77	1.19	140	82.57	1.21	7,517	53.69
Middletown	1,074	195	55.08	1.82	49	109.56	.91	124	86.61	1.15	5,583	45.03
New Shoreham	1,147	208	55.15	1.81	80	71.69	1.39	111	103.33	.96	4,151	37.39
Portsmouth	1,893	255	74.22	1.35	96	98.59	1.01	216	87.64	1.14	10,231	47.32
Tiverton	2,101	470	44.67	2.24	269	39.05	2.56	285	73.72	1.36	12,271	43.05
TOWNS, NEWPORT CO.	7,859	1,364	57.62	1.65	585	67.17	1.49	918	85.61	1.17	41,921	45.66
NEWPORT CITY	14,028	3.386	41.43	2.42	1,173	59.79	1.67	2,041	68.73	1.45	74,533	36.51
NEWPORT COUNTY	21,887	4,750	46.09	2.16	1,758	62.25	1.60	2,959	73.97	1.35	116,454	39.35

TOWNS AND DIVISIONS OF THE STATE.	Estimated Average Population, 1870 to 1879.	BIRTHS.			MARRIAGES.			DEATHS.				
		Whole No. Births, 10 years. 1870–1879.	Average to population one in every	Per cent.	Whole No. Marriages, 10 years. 1870–1879.	Average to population one person married in every	Per cent.	Whole No. Deaths, 10 years. 1870–1879.	Average to population one in every	Per cent.	Aggregate Age of all.	Average Age of all.
Burrillville	5,249	1,140	46.05	2.17	320	82.02	1.22	677	77.53	1.29	22,966	33.92
Cranston	5,688	1,286	44.23	2.26	174	163.42	.61	1,045	54.43	1.82	39,417	37.72
Cumberland	5,673	1,228	46.20	2.16	622	45.60	2.19	640	88.64	1.13	19,566	30.56
East Providence	4,336	1,003	43.23	2.31	263	82.41	1.21	592	73.24	1.36	16,730	28.26
Foster	1,543	212	72.78	1.37	236	32.69	3.06	151	102.20	.98	8,025	53.14
Glocester	2,098	421	49.83	2.01	234	44.83	2.23	335	62.03	1.61	15,052	44.93
Johnston	4,999	1,159	43.13	2.32	228	110.00	.90	745	67.10	1.49	23,047	30.94
Lincoln*	11,565	2,923	35.61	2.80	514	101.25	.99	1,575	66.08	1.51	34,869	22.14
North Providence†	1,303	191	40.92	2.44	37	106.50	.94	113	69.18	1.45	3 44	29.60
North Smithfield*	2,797	537	46.88	2.13	221	62.83	1.59	322	78.17	1.26	10,353	32.15
Pawtucket	18.464	4,124	44.77	2.23	1.349	68.34	1.46	2,062	89.49	1.12	61,474	29.81
Scituate	4,101	688	59.62	1.61	472	43.33	2.30	547	74.97	1.32	22.098	40.39
Smithfield‡	2,857	611	46.76	2.14	309	45.74	2.12	421	67.86	1.47	15,208	36.12
Woonsocket	13,576	3,741	36.29	2.76	1,522	47.88	2.09	2,628	51.66	1.92	64.352	24.49
TOWNS, PROVIDENCE CO.	84,249	18,264	46.67	2.14	7,282	57.77	1.73	13,440	62.68	1.59	391,875	29.15
PROVIDENCE CITY	100,675	23,950	42.00	2.38	10,399	48.31	2.07	17,587	57.24	1.75	488,256	27.76
PROVIDENCE COUNTY	184,924	42,214	43.81	2.28	17,681	52.30	1.90	31,027	59.60	1.67	880.131	28.37
Charlestown	1,054	173	60.92	1.64	70	75.29	1.33	151	69.80	1.42	728	54.33
Exeter	1,355	185	73.24	1.36	160	42.34	2.36	159	85.22	1.17	8.202	51.58
Hopkinton	2,760	604	45.69	2.19	209	63.60	1.57	392	70.41	1.42	15.983	40.78
North Kingstown	3,505	772	45.40	2.20	266	65.88	1.52	553	63.38	1.58	22,539	40.76
South Kingstown	4,240	974	43.53	2.29	373	56.84	1.77	602	70.43	1.41	26,484	43.99
Richmond	1,739	411	42.31	2.36	144	60.38	1.65	299	58.46	1.71	11.415	38.18
Westerly	5,408	945	57.23	1.73	635	42.58	2.35	603	89.68	1.11	20.897	34.66
WASHINGTON COUNTY	20,061	4,064	49.36	2.03	1,857	54.01	1.85	2,759	72.71	1.37	112.501	40.52
WHOLE STATE	258,239	58,771	44.75	2.23	24,006	53.79	1.86	41,257	62.59	1.59	1.265.694	30.68

* Nine years. Organized March, 1871. † Six years. Divided May, 1874. ‡ Nine years. Divided March, 1871.

In the foregoing Table will be found the aggregate number of births, marriages and deaths that have occurred in each of the several towns of the State, during a period of ten years, with the annual average to the population, and average percentage of the same.

In the division of deaths, there will also be found the aggregate age of all the decedents in each of the towns, during the same period, and the average age of all.

The population of the State has been gradually, though not rapidly, increasing, in nearly all of the towns, and has therefore changed more or less in numbers in each of them, during the period of ten years. It was, therefore, desirable to ascertain, as far as possible, the average population of each of the towns during the period of time taken, for the purpose stated. Upon finding the average population of several towns, it was seen that the number was so near the population by the Census of 1875, and the number by that Census presenting an approximate mean sufficiently near for all practical purposes, it was therefore adopted as a basis for the averages and percentages.

The exceptions of towns to the whole number of ten years in the preceding Table, are: Lincoln, North Smithfield and Smithfield, which were organized as at present constituted in 1871, and therefore cover a period of nine years, and North Providence, which was divided in 1874, and covers a period of six years only.

It will be seen upon an examination of Table XV., that the proportions of the average number of each of the several classes of events to the population of the towns and sections where they occur, vary very considerably even in a long series of years, though very much less than during single years.

It will also be noticed that the larger the population, the more uniform, as a rule, will be the percentages, especially of births and deaths. The aggregation of the town populations into counties is an example.

BIRTHS.

In the division of births, it will be found that the average proportion of that class of events, to the population, varies from one birth in every 33.54 persons, or nearly three per cent., in Bristol, to one birth in every 99.59 persons, or about one per cent., in Jamestown.

The towns having an exceptionally high birth rate, following Bristol, are: Lincoln, one birth in every 35.61 persons; Woonsocket, one in every 36.29; North Providence, one in every 40.92 persons.

Following Jamestown, the towns having a noticeably low birth rate, are: Barrington, one birth in every 75.96 persons; Portsmouth, one in every 74.22; Exeter, one in every 73.24; and Foster, one in every 72.78 persons.

Among the larger divisions of the State, Providence city and Bristol county show the largest proportion of births to population; that is, one in every 42.00 persons, or 2.38 per cent.

The towns of Providence county show an average birth rate of one to every 46.67 persons, or 2.14 per cent.; Washington county, one in every 49.36 persons, or 2.03 per cent.; and Kent county, one in every 49.33, or 2.02 per cent.

In Newport county towns, the birth rate is one birth in every 57.62 of the population, or 1.65 per cent., while in Newport city, the proportion is one in every 41.43 persons, or 2.42 per cent. The difference of birth rates between the towns of Newport county and the city of Newport, for the term of ten years, is rather less than for the last five years.

In Newport county, the average proportion is one birth in every 46.09 persons, or 2.16 per cent., and in Providence county, one in every 43.81, or 2.28 per cent.

The annual average for the whole State is one in every 44.75 persons, or 2.23 per cent. of the population.

MARRIAGES.

For various obvious reasons, the marriage rates of the different towns present very much less uniformity than those of either births or deaths. The proportions vary from one person married in every 32.69 of the population, or 3.06 per cent., in Foster, to one person married in every 163.42 persons, or 0.61 per cent., in Cranston—a difference of more than five to one.

The towns having an unusually high marriage rate, following Foster, are: Tiverton, with an average annual rate of one person married in every 39.05 of the population, or 2.56 per cent.; Exeter, 2.36 per cent.; Westerly, 2.35 per cent.; and Glocester, 2.23 per cent.

At the other extreme, following Cranston, are: Johnston, with one person married in every 110.00 persons, or .90 per cent.; Middletown, .91 per cent.; and North Providence, Jamestown and Lincoln, each falling short of one per cent. of the population in the annual average.

In the counties, the ratios of persons married, to the population, are seen to be much more uniform. The percentages are as follows: Bristol county, 1.64 per cent.; Kent county, 1.77 per cent.; Newport county, 1.60 per cent.; Providence county, 1.90 per cent.; and Washington county, 1.85 per cent.

In the whole State, for the period of ten years, the annual average is one person married to every 53.79 persons, or 1.86 per cent.

DEATHS.

The greatest mortality, in proportion to population, is found in the town of Woonsocket, that is, an annual average of one decedent in every 51.66 of the population, or 1.92 per cent. Following Woonsocket, in the bad eminence of a high death rate, are: Cranston, with the average annual ratio of 1.82 per cent.: Providence city, 1.75 per cent.; Richmond and West Greenwich, 1.71 per cent. each. For the period of ten years, no town in the State shows an average death rate as high as two per cent.

The minimum ratio of mortality to population, is found in the town of Jamestown, with one decedent to every 116.19 persons, or 0.86 per cent. Jamestown, it will be remembered, had also the minimum percentage of births.

As a rule, it will be found that a high birth rate in any town will also be attended by a high death rate. The reason will be obvious, when it is remembered that of every 100 children born in the State of Rhode Island, during the last twenty-five years, 35 have ceased to exist at the end of five years.

Next to Jamestown, the towns showing a low rate of mortality, are: New Shoreham, one decedent in every 103.33 persons, or 0.96 per cent., and Foster, one in every 102.20 persons, or 0.98 per cent.

Newport city shows an average annual mortality of 14.5 in each one thousand, and Providence city, 17.5 in each one thousand.

In the counties, the ratios of mortality are as follows:

Bristol County	15.4 in each one thousand.
Kent County	13.8 in each one thousand.
Newport County	13.5 in each one thousand.
Providence County	16.7 in each one thousand.
Washington County	13.7 in each one thousand.
Whole State	15.9 in each one thousand.

There is a small relative loss in the State in leaving out the decedents in North Providence previous to 1874, and it cannot be said that the estimated average population is absolutely exact within a score of persons, but it will be admitted that the numbers taken are sufficiently approximate for relative comparisons, and all other practical purposes.

In order to facilitate comparisons of the average percentages to the population, of the births, marriages and deaths in the different counties of Rhode Island, and also the State, during the period of ten years from 1870 to 1879, inclusive, the following synopsis is presented:

	Births, one in every	Marriages, one person married in every	Deaths, one in every
Bristol County	42.09	60.95	64.74
Kent County	49.33	56.33	72.41
Newport County	46.09	62.25	73.97
Providence County	43.81	52.30	59.60
Washington County	49.36	54.01	72.71
Whole State	44.75	53.79	62.59

It may be of interest to contrast the births, on the basis of each 100 of the same, during the last ten years, with the number of persons married, and with the number of deaths for the same period, in each of the larger divisions of the State, and in the whole State.

In Bristol county, the aggregate of births for the period named, was 2,618; number of persons married, 1,808; number of deaths, 1,702. The proportions, therefore, stand as follows: For every 100 births there were 65.01 deaths, and 34.50 marriages, or 69.00 persons married.

In Kent county, the aggregates were: Births, 4,125; marriages, 1,806; deaths, 2,810. The proportions are as follows: For every 100 births there were 43.78 marriages, or 87.56 persons married, and 68.12 persons died.

In Newport county there were 4,750 births, 1,758 marriages, and 2,959 deaths. The ratio for every 100 births, 37.16 marriages, or 74.23 persons married, and 62.30 persons died.

In Providence county there were 42,214 births, 17,681 marriages, and 31,027 deaths. For every 100 births there were 41.88 marriages, or 83.77 persons married, and 73.50 deaths.

In Washington county there were 4,064 births, 1,857 marriages, and 2,759 deaths. For every 100 births there were 45.69 marriages, or 91.38 persons married, and 67.90 persons died.

In the whole State, for the same period, there were 58,771 births, 24,006 marriages, or 48,012 persons married, and 41,257 persons died. The proportions for the whole State are, therefore, for every 100 births there were 40.84 marriages, or 81.69 persons married, and 70.20 persons died.

The following recapitulatory summary will present the foregoing remarks more concisely and clearly:

		Persons married.	Deaths.
Bristol County	To every 100 births there were	69.00	65.01
Kent County	To every 100 births there were	87.56	68.12
Newport County	To every 100 births there were	74.23	62.30
Providence County	To every 100 births there were	83.77	73.50
Washington County	To every 100 births there were	91.38	67.90
Whole State	To every 100 births there were	81.69	70.20

AVERAGE AGE.

It will be borne in mind, that the circumstance of average individual longevity, in any town or division of the State, is not dependent on the relative healthfulness of the location. The surroundings must be necessarily salubrious to promote length of life; but the character of the habitations, the home methods of living, dietetic and otherwise, the public habits and customs, the average intelligence, industry and morality of the populace, are potent factors of the length or brevity of life.

Then the circumstance of slow increase of population, owing to the departure, at an early age, of a large proportion of the population to engage in the active occupations of life in other localities, and leaving but a meagre percentage of young adults to establish families, in the child-bearing period of life, and the necessary corollary of a diminished percentage of births, of which about 35 in each 100 would be expected to have ceased to exist at the expiration of the fifth year, thus *lowering* the average age in towns having a high birth rate, and *raising* it in towns having a low birth rate.

It will, therefore, be understood that to obtain a fairly approximate knowledge of the relative healthfulness of the towns, and consequent relative longevity of the inhabitants of each, the various circumstances alluded to above must be taken into consideration.

Upon consultation of Table XV., it will be seen that the maximum average age of all the decedents during the last ten years, was in the town of Charlestown: that is, 54.33 years. The minimum average age of the whole number of decedents, for the same period, was in the town of Lincoln; that is, 22.14 years.

It will be noticed that the birth rate in Charlestown is but little more than half that of Lincoln, and a reasonable inference would be that the higher average age at death in Charlestown was owing, in great part at least, to the absence of a large proportional number of that class which is peculiarly subject to fatal diseases at an early age.

Following Charlestown, in presenting an advanced average age at the time of decease, are: Little Compton, 53.69 years; Foster, 53.14 years; Jamestown, 51.62 years; Exeter, 51.58 years.

Of the minimum average age, next to Lincoln, are: Woonsocket, 24.49 years; Providence city, 27.76 years; East Providence, 28.26 years; Pawtucket, 29.81 years.

The following summary will show the average age of decedents in the different counties and in the whole State:

Bristol County..Average age at death 33.77 years.
Kent County..Average age at death 35.29 years.
Newport County..Average age at death 39.35 years.
Providence County..Average age at death 28.37 years.
Washington County..Average age at death 40.52 years.
Whole State..Average age at death 30.68 years.

TABLE XVI.

Showing the proportions of Births, Marriages and Deaths, to the population, in the aggregate for the whole State, in each of the last eleven years.

YEARS.	BIRTHS.		MARRIAGES.		DEATHS.		
	Number.	To population one birth in	Number.	Of population one person married in	Number.	Of population one death in	Deaths in each 100 of the population.
1869	5,245	41.4	2,289	47.5	3,382	64.2	1.56
1870	5,215	41.7	2.362	46.0	3,238	67.1	1.49
1871	5,678	38.2	2,336	46.5	3,344	65.0	1.54
1872	6,143	35.4	2,537	42.9	4,247	51.2	1.95
1873	6,022	36.1	2,630	41.3	4,403	49.4	2.03
1874	6,466	39.9	2,541	50.8	4,229	61.1	1.64
1875	6,508	39.7	2,485	52.0	4,317	59.8	1.67
1876	6,329	40.8	2.253	57.3	4,116	62.7	1.59
1877	6,235	41.4	2.282	56.6	4,450	58.0	1.72
1878	6,714	38.5	2,324	55.7	4,441	58.1	1.72
1879	6,350	43.6	2,396	57.8	4,472	61.9	1.60

It will be seen by the above Table, that the number of births recorded in the State during the year 1879, was less by 364 than during the preceding year, and more by 115 than in 1877.

The difference between the numbers reported in 1878 and 1879 is not greater than has occurred frequently before, and considerable fluctuation may be considered the rule.

The proportion of births to population, in the whole State, according to the Census of 1880, is one to every 42, or 2.4 per cent. The proportion of one birth in every 38.5 as given in the Report for 1878, was based upon the State Census of 1875, and, as then stated, was larger than the actual population at the time would warrant.

There is a small increase in the number of marriages as compared with the returns for 1878, but it falls considerably short of the numbers reported in each of several years previous to 1876. In 1873 the proportion of persons married, to the population, was one in every 41.3; in 1879, one in every 57.8; a difference of 0.69 per cent. It is probable the year 1880 will show a more largely increased proportion over that of 1879, than that for several previous years.

The advent and continuance of more lively industrial activities, larger demand and better compensation for labor, will, independent of increased population, doubtless contribute to swell the proportional number in the years immediately forthcoming.

The proportion of one person married, in 1879, to every 57.8 of the population of the State, by the Census of 1880, is smaller than that of any other of the preceding 20 years, and doubtless of any other year since the commencement of registration, if not of the whole period of the existence of the State.

The number of deaths reported in 1879 is also slightly larger than in 1878, and also larger than in any previous year. The proportion, however, to the population, calculated by the Census of 1880, is less than for the preceding two years, but on the same basis of population, the percentage would scarcely differ.

The proportion is one decedent in each 61.9 of the population, or 1.62 per cent.

BIRTHS, 1879.

There will be found on pages 2 to 6, inclusive, in Tables I., II. and III., the general statistics in relation to births in Rhode Island, during the year 1879.

The whole number reported is 6,350, which is 364 less than in 1878, and 115 more than in 1877.

SEX OF THE CHILDREN BORN.

Of the 6,350 children whose births were reported in 1879, there were 3,259 males and 3,091 females. This gives 105.4 males to each 100 females, or 51.32 males and 48.68 females in each 100 children.

The following recapitulatory Table shows the numbers and sex, and the proportions of each sex of the children born in Rhode Island, in each of the last twenty-six years:

TABLE XVII.

Years.	Males.	Females.	Males to each 100 Females.	Males.	Females.
1854	1,081	1,003	107.8, or	51.87 and	48.13 in each 100.
1855	1,492	1,421	105.0. or	51.22 and	48 78 in each 100.
1856	1,479	1,407	105.1, or	51.25 and	48.75 in each 100.
1857	2,057	1,948	105.6. or	51.36 and	48.64 in each 100.
1858	2,200	2,053	107.2. or	51.73 and	48.27 in each 100.
1859	2,209	2.097	105.3. or	51.30 and	48.70 in each 100.
1860	2,263	2.212	102.3, or	50.57 and	49.43 in each 100.
1861	2,531	2,291	110.5, or	52.49 and	47.51 in each 100.
1862	2,152	1,967	109.4, or	52.25 and	47.75 in each 100.
1863	1.892	1,288	105.8, or	51.41 and	48.59 in each 100.
1864	1,949	1.942	100.3, or	50.09 and	49.91 in each 100.
1865	2,096	1,857	112.9, or	53.02 and	46 98 in each 100.
1866	2,546	2,356	108.0, or	51.94 and	48.06 in each 100.
1867	2,665	2,464	107.0, or	51.87 and	48.13 in each 100.
1868	2,745	2,627	104.5, or	51.10 and	48.90 in each 100.
1869	2,685	2,560	104.9, or	51.19 and	48.81 in each 100.
1870	2,679	2,536	105.6, or	51.37 and	48.63 in each 100.
1871	2,878	2.800	102.8, or	50.69 and	49.31 in each 100.
1872	3,085	3,058	100.9, or	50.22 and	49.78 in each 100.
1873	3,135	2,887	108.6, or	52.06 and	47.94 in each 100.
1874	3,311	3,155	104.9. or	51.21 and	48.79 in each 100.
1875	3,362	3,146	106.9, or	51.66 and	48.34 in each 100.
1876	3,291	3.038	108.3, or	52.00 and	48.00 in each 100.
1877	3,163	3,072	103.0, or	50.73 and	49.27 in each 100.
1878	3,402	3,312	102.7, or	50.67 and	49 33 in each 100.
1879	3,259	3,091	105.4, or	51.32 and	48.68 in each 100.

The number of male births in 1879 was 143 less than in 1878, the number of female births, 121 less. The whole number of births reported in 1878 was largely in excess of any previous year, but it must be admitted that with the ordinary increase of population, the number of births reported in 1879 is less than might reasonably be expected.

PROPORTION OF THE SEXES.

In Table II., on the fourth page, will be found the number of births in 1879, reported from the different divisions of the State, with the number of each sex respectively.

A wide difference in the proportion of the sexes is found one year with another, not only between the different divisions, but also in the same division.

The following Table will present the number and proportion in each division in 1879:

TABLE XVIII.

BIRTHS, 1879.	Bristol County.	Kent County.	Newport County, Towns.	Providence County, Towns.	Washington County.	Newport City.	Total.	Providence City.	Whole State.
Males	133	211	75	1,164	229	151	1,962	1,297	3,259
Females	107	221	66	1,104	216	152	1,866	1,225	3,091
Total	240	432	141	2,268	445	303	3,828	2,522	6,350
Males to each 100 Females	124.3	95.5	113.6	105.4	106.3	99.3	105.1	105.7	105.4

Taking a large population there will, in every year, be a larger proportion of male children born than of females. But in smaller populations, the proportions will curiously vary.

By the above Table it will be seen that, while in Bristol county the proportion was 124.3 males to each 100 females; in Kent county it was reversed, and stands only 95.5 males to each 100 females.

By reference to Table XIX., it will be seen that Bristol county has reported a large excess of male births for 15 out of 17 years registration, running up in 1876 to 142.1 males to each 100 females.

In Kent county, the difference has not been so marked, but the excess was largest of male children in 1878; that is, 120.6 males to each 100 females.

In Newport city, the proportions are nearly equal, while in the towns of Newport county the males predominate, 113.6 males to each

100 females. In 1878, the births of female children in Newport city exceeded those of male children quite largely, and there was also an excess of female births, taking the whole county together.

In the towns of Providence county and in Providence city, the excess of male children is about equal; that is, about 105.6 males to each 100 females.

In Washington county, the male births again predominate, 106.3 males to 100 females. In 1878, Washington county reported the largest proportional number of female births of any county in the State for a period of sixteen years; that is, 126.8 females to each 100 males.

In the whole State, the proportion of the sexes is 105.4 males to each 100 females.

PROPORTION OF THE SEXES.

Contrast of the city of Providence with the rest of the State.

The possible influence of modes of living in determining the sex of children has been frequently mooted. In order to illustrate the difference, if any exist. between city life, and village and country life, as found in Rhode Island, a comparison of the statistics of births in the city of Providence, with those reported from the rest of the State, will be presented.

These comparisons would hardly be a fair test of the influences of city life, as they might be found in cities less favored than the city of Providence, in regard to location, and other circumstances and conditions favorable to health, and a purely country life.

There are several large and many small villages in the State, and parts of the city of Newport, where may be found existing all the conditions contributing to either temporary physical exaltation, or final mental and physical degeneration, almost, if not quite as largely as in the city of Providence.

The whole number of births in the city of Providence during the year 1879 was 2,522, of which 1,297 were males, and 1,225 were females. The proportion of males to females would, therefore, be as follows: 105.7 males to each 100 females, or 51.43 males and 48.57 females in each 100 children born.

In the rest of the State, during the same year, the whole number of children born was 3,828, of which 1,962 were males, and 1,866 were females, or 51.25 males and 48.75 females in each 100 births.

The following shows the proportion of the sexes of the children born in Providence, and in the rest of the State, during the years 1878 and 1879, and also in the twenty-five years from 1854 to 1878, inclusive:

1878.

	Males.	Females.	Males to each 100 Females.	Males.	Females.
Providence City	1,335	1,250	106.8, or	51.64 and	48.36 in each 100.
Rest of the State	2,067	2,062	100.2, or	50.06 and	49.94 in each 100.

1879.

	Males.	Females.	Males to each 100 Females.	Males.	Females.
Providence City	1,297	1,225	105.7, or	51.43 and	48.57 in each 100.
Rest of the State	1,962	1,866	105.1, or	51.25 and	48.75 in each 100.

TWENTY-FIVE YEARS, 1854 TO 1878, INCLUSIVE.

	Males.	Females.	Males to each 100 Females.	Males.	Females.
Providence City	24,051	22,774	105.6, or	51.36 and	48.64 in each 100.
Rest of the State	38,297	35,723	107.2, or	51.74 and	48.26 in each 100.

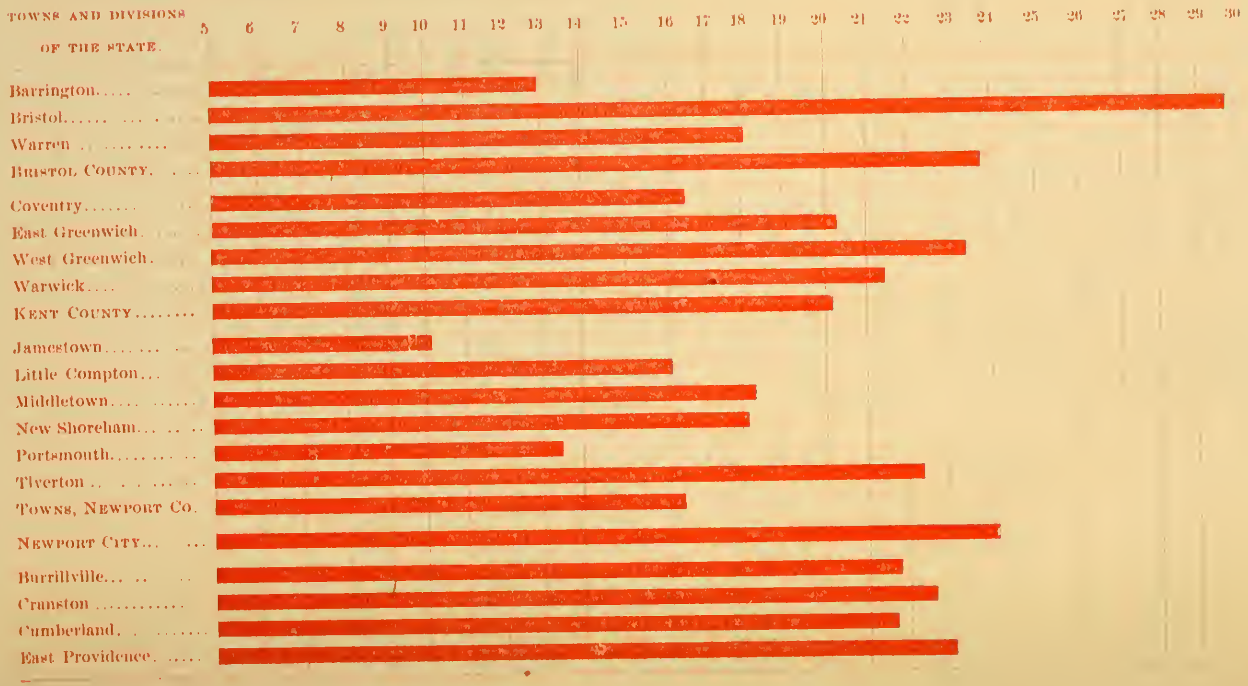
It will be seen by the above comparison, that during the last two years the births of male children in the city of Providence have exceeded those of female children. This, also, is shown to be no exception to the general rule, by the summary for twenty-five years.

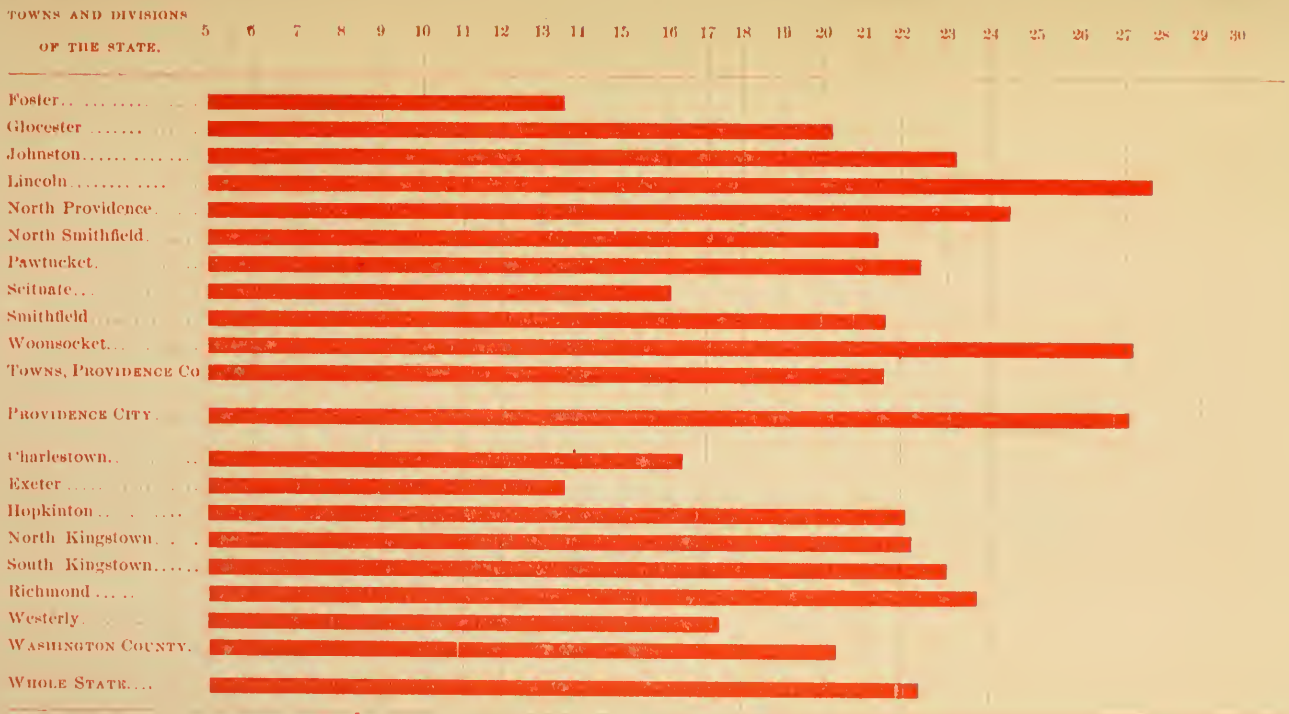
It must be admitted that the conditions of city or country life, strictly each by itself, have little influence in the causation of sex, or that in Rhode Island, at least, the habits, customs, and everything pertaining to manner of living, are not very dissimilar.

The following Table, continued from the last report, shows the relative proportions of the sexes, in each of the last seventeen years, in each of the larger divisions of the State, and in the whole State:

BIRTH RATE.

Diagram showing the annual average of births in each 1000 of the population in each town in the State, during the period of ten years, from 1870 to 1879, inclusive.

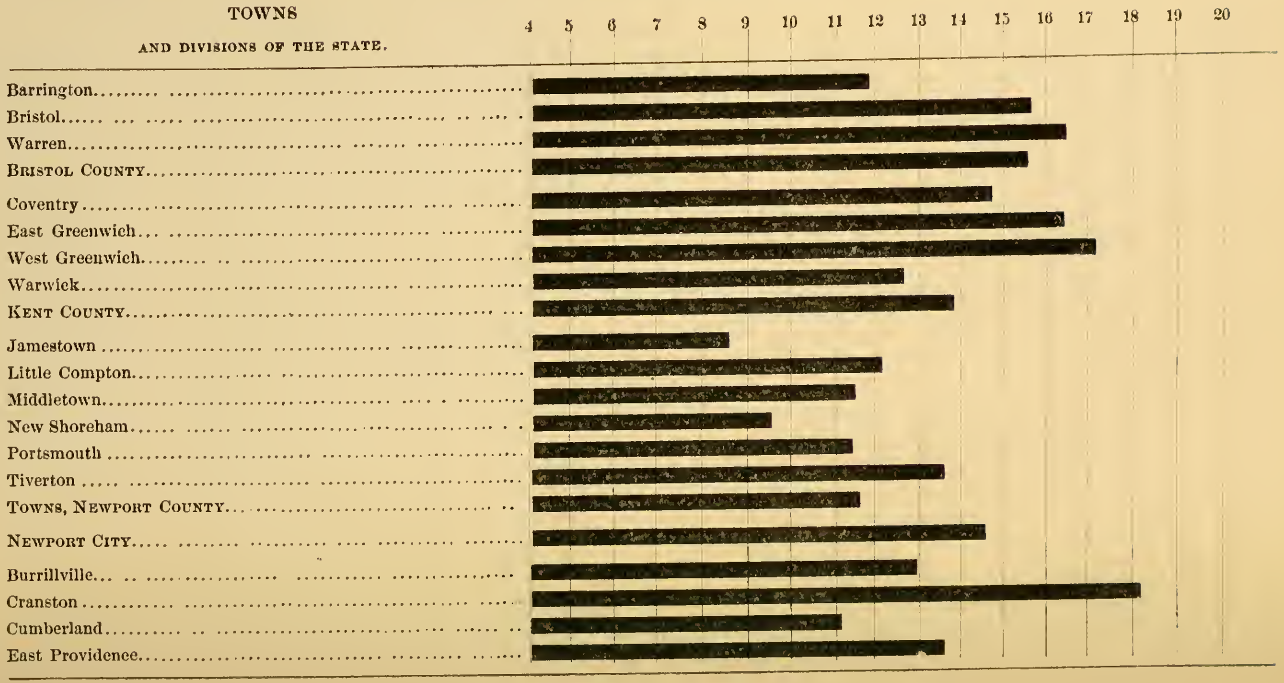


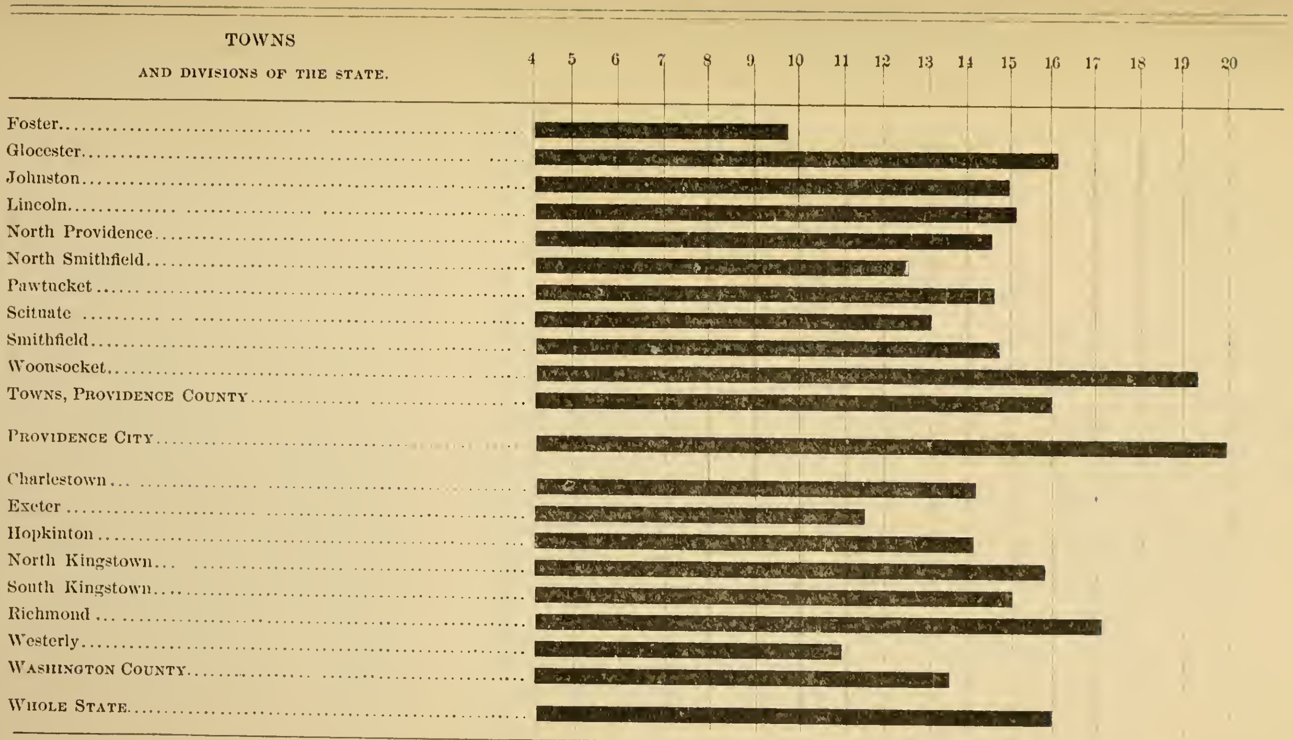


The figures at the top of the perpendicular lines indicate, in whole numbers, the average of births each year in every 1000 persons. The spaces are fractional parts of one. For instance, the heavy horizontal line against Barrington reaches nearly to perpendicular line 13. It shows the birth rate of Barrington to be about 13 in each 1000.

DEATH RATE.

Diagram showing the annual average of deaths in each 1000 of the population in each town in the State, during the period of ten years, from 1870 to 1879, inclusive.





The figures at the top of the perpendicular lines indicate, in whole numbers, the average of deaths each year in every 1000 persons. The spaces are fractional parts of one. For instance, the heavy horizontal line against Barrington reaches nearly to perpendicular line 12. It shows the death rate of Barrington to be 11 9-10 per 1000.

TABLE XIX.

NUMBER OF MALES TO EACH 100 FEMALES.

BIRTHS.	Bristol County.	Kent County.	Newport County.	Providence County, Towns.	Providence City.	Washington County.	Whole State.
1863	120.0	98.4	97.0	101.8	111.4	108.7	105.8
1864	106.8	87.3	90.6	107.4	97.3	103.4	100.3
1865	119.3	118.2	108.8	118.9	113.8	88.1	112.9
1866	109.4	113.1	103.4	104.9	108.4	124.0	108.0
1867	115.5	98.3	117.8	106 3	104.5	120.4	107.7
1868	117.4	88.7	100.2	101.6	102.4	136.5	104.5
1869	115.7	116.7	102.7	98.0	107.5	120.6	104.9
1870	126.4	111.6	100.0	105.1	104.9	99.5	105.6
1871	131.8	97.9	132.5	100.8	95.2	113.3	102.8
1872	109.2	92.8	109.1	103.5	95.7	110.6	100 9
1873	129.2	113.0	117.9	104.5	109.0	104.7	108.6
1874	98.7	111.9	101.3	110.4	102.9	94.0	104.9
1875	95.2	103 1	97.7	104.3	109.1	134.3	106.9
1876	142 1	104.4	108.5	108.0	106.8	103.7	108.3
1877	138.7	102.4	98.5	100.3	104.9	95.3	103.0
1878	120.5	120.6	94.8	101.5	106.8	78.8	102.7
1879	124.3	95.5	103.6	105.4	105.7	106.3	105.4

An examination of the preceding Table will show, that while there has been an excess of births of male children, taking the whole State, in each of the last seventeen years, the excess has not prevailed without exceptions in each of the several larger divisions.

In Bristol county, during that time, the exceptions have occurred but twice, and then, as will be seen in the Table, the excess of female births was not large in degree. In Kent county, the births of female children have exceeded those of the male sex in seven of the seventeen years; in Newport county, during five; in Providence county, towns, during one only; in Providence city, during three, and in Washington county, during five of the seventeen years. The difference in Washington county, in 1878, 78.8 males to each 100 females, was larger than any recorded in any other division during the whole period.

As showing the changes that occur from year to year, reference may be made to the proportion of the sexes born in Washington county during the year 1868, 136.5 males to each 100 females, or nearly double the proportion of males born in the same county, in 1878.

Attention is also called to the remarkable record of Bristol county during each of the last four years, in which the yearly average of male children born has been 131.4 to each 100 females.

During the period of seventeen years, the extremes of difference in the proportions of the sexes born, have been greatest in Washington county, and least in Providence city, and next least, and closely following, Providence county, towns.

BIRTHS: SEX AND SEASON.

In Table II., on page 4, will be found the number of births, as they occurred during the year 1879, arranged by the several months, and by the sexes. From it we ascertain the number of each of the sexes born during each quarter of the year, with their relative proportions, and also the aggregates and proportions of the same for the whole State.

The following Table will present a summary of the quarterly periods, number of births and proportion of the sexes, for the same:

	Males.	Females.	Males to each 100 Females.	Males.	Females.
1. January—March	749	716	104.6, or	51.13 and	49.87 in each 100.
2. April—June	794	762	104.2, or	51.00 and	44.00 in each 100.
3. July—September	833	820	101.6, or	50.33 and	49.67 in each 100.
4. October—December	883	793	111.4, or	52.68 and	47.32 in each 100.
Year, 1879	3,259	3,091	105.4, or	51.34 and	48.66 in each 100.

We continue the following Table from the last report, which shows the number of male children born to each 100 female children, in each quarter of each of the last fourteen years:

TABLE XX.

YEARS.	1879.	1878.	1877.	1876.	1875.	1874.	1873.	1872.	1871.	1870.	1869.	1868.	1867.	1866.
First Quarter	104.6	106.6	107.9	105.7	97.7	100.4	98.3	98.8	112.4	111.6	107.3	102.4	105.5	108.7
Second Quarter	104.2	98.9	103.1	109.2	113.8	108.2	105.9	100.5	95.0	100.8	105.1	118.8	108.9	102.9
Third Quarter	101.6	103.8	97.6	108.0	108.2	105.1	109.9	101.6	99.3	101.0	101.9	103.1	110 4	113.8
Fourth Quarter	111.4	102.0	104.2	110.4	107.9	105.9	110.4	103.4	105.0	109.2	105.6	96.2	106.5	106.6
Whole Year	105.4	102.7	103.0	108.3	106.9	104.9	108.6	100.9	102.8	105.6	104.9	104.5	107.7	108.0

It has been previously observed that the number of male children born in the whole State, in each and every year, has been invariably larger than that of female children, but the difference in the proportions has, as might be expected, varied somewhat from year to year.

The excess of male births during the year 1879, was larger by nearly three per cent., than during the year 1878. The excess occurred very largely in the fourth quarter, which, compared with the same quarter, in 1878, is found to have been more than nine per cent. greater.

For the purpose of illustrating more fully, the possible influence of season upon the development or causation of sex of the children born in Rhode Island, the following Table has been prepared, which shows the number and sex of the children born in the State, in each quarter of the year, in the aggregate for twenty years, from 1860 to 1879, inclusive; and also the proportion of the sexes in each quarter:

	Males.	Females.	Males to each 100 Females.	Males.		Females.	
1. January—March	12,912	12,202	105.8, or	51 41	and	48.59	in each 100 births.
2. April—June	13,006	12,226	106.4, or	51.55	and	48.45	in each 100 births.
3. July—September	14,188	13,611	104.3, or	50.85	and	49.15	in each 100 births.
4. October—December	14,971	14,072	106.4, or	51.55	and	48.45	in each 100 births.
Whole No. 20 years	55,077	52,151	105.6, or	51.37	and	48.63	in each 100 births.

Judging from the results, as shown in the above summary for twenty years, it does not appear that the conditions of the different seasons have very decided and evident influences in the causation of sex.

BIRTHS AND SEASON.

The influence of season in regard to the whole number of children born, may also claim attention as a question of considerable importance.

The following Table shows the total number of children born in the State of Rhode Island, (according to the returns,) in each quarter of each of the last ten years; and also the aggregate number and the percentage of the aggregate in each quarter for twenty-seven years, from 1853 to 1879, inclusive:

Table XXI.

QUARTERS.	1879.	1878.	1877.	1876.	1875.	1874.	1873.	1872.	1871.	1870.	1853 to 1879.	
											Number.	Per cent.
January—March. ..	1,465	1,622	1,399	1,524	1.546	1,485	1,382	1,348	1,332	1,183	30,402	23.71
April—June	1,556	1,565	1,406	1,496	1,608	1,555	1,399	1,464	1,299	1.243	30.115	23.50
July—September ..	1,653	1,731	1,674	1,668	1,668	1,682	1,583	1,663	1,475	1,327	33,599	26.21
October—December	1,676	1,796	1,756	1,641	1,686	1,744	1,658	1,668	1,572	1,462	34,079	26.58
Whole Year	6,350	6,714	6,235	6,329	6,508	6,466	6,022	6,143	5,678	5.215	128,195	100.00

An examination of the above Table will show that the year 1879 presented no exception, according to the returns, to the general rule, for the whole period of registration, of the occurrence of the smaller number of births during the first half of the year. It will also be noticed that during the last ten years, the numbers have increased regularly from the first to the last quarter, with but few exceptions, and also that the totals of each half year, for a period of twenty-seven years, show the average proportions to be 47.2 in the first half, and 52.8 in the last half, of the year, in each 100 children born.

Do the statistics, as presented, warrant the conclusion that there are more births during the last, than during the first half, of the year?

It is a question involving the accuracy of the returns. If the returns are correct, then unquestionably the statistics shown above justify such a conclusion, and the fact is established.

In regard to the question of correct returns, it may be stated that, in cities where the collection of returns of births is made semi-annually, the *difference* in the number for each half year, respectively, *is less* than in cities and towns where the collection is made annually. In the report for the year 1878, the reasons were accounted for in part as follows:

> “The collector of returns, canvassing a town in the month of January of a year succeeding that in which the births occurred, will fail to find many families in which there have been births during the first months of the previous year, for the reason that they have removed to other towns. Then, again, persons, some parents even, from forgetfulness or heedlessness, and especially when a child dies during the first weeks or months of infancy, will fail to inform the collector when called upon. But for the later months of the year, in Rhode Island, the removal of families is very much less frequent, and the memory of heedless persons called upon in the January following has not so long a period of time to cover.

"It is, however, quite possible that the circumstances of season, the modes of living, the temperature and other meteorological conditions of the colder months, may have some influence in the aptness to human reproduction."

The percentages of the different quarters of the year 1879, were as follows: First quarter, 23.07; Second quarter, 24.54; Third quarter, 26.04; Fourth quarter, 26.35.

PARENTAGE.

By reference to Table I., page 2, in the division of births, there will be found the parentage of the children born in Rhode Island during the year 1879. It will be seen that of the whole number—6,350—there were 2,767 of American parentage, 2,573 foreign, and 1,010 of mixed parentage.

The following Table will show the parentage of the children born in the State, and the variations of the same from year to year, in each of the last four years, and also the number and variations occurring in four periods of five years each, from 1858 to 1877, inclusive:

TABLE XXII.

PARENTAGE.	1879.	1878.	1877.	1876.	5 years. 1873 to 1877.	5 years. 1868 to 1872.	5 years. 1863 to 1867.	5 years. 1858 to 1862.
American	2,767	2,887	2,665	2,585	13,431	12,214	9,712	10,609
Foreign	2,573	2,848	2,642	2,873	13,990	12,366	9,968	9,697
Amer. father and For. mother	442	463	416	354	11,782	1,353	876	814
For. father and Amer. mother	568	516	512	517	2,357	1,720	941	755
Parentage not stated	......	......	......	......	....	....	70	223
Total	6,350	6,714	6,235	6,329	31,560	27,653	21,567	22,098

The changes that have occurred in the proportions of the births in the different classes, during the period of twenty-two years, may be shown in a different, and perhaps clearer manner, by the following Table of *percentages:*

Table XXIII.

PARENTAGE.	1879.	1878.	1877.	1876.	5 years. 1873 to 1877.	5 years. 1868 to 1872.	5 years. 1863 to 1867.	5 years. 1858 to 1862.
American	43.57	43.00	42.74	40.84	42.55	44.17	45.18	48.50
Foreign	40.53	42.82	42.38	45.40	44.35	44.72	46.37	44.33
American father and For. mother	6.96	6.35	6.67	5.59	5.84	4.89	4.07	3.72
Foreign father and Amer. mother	8.94	7.83	8.21	8.17	7.26	6.22	4.38	3.45
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

The number of births occurring from year to year, among the different classes of the population, is in conformity with the general rule of variation, though perhaps somewhat less limited in extent.

By the preceding Tables, it will be seen that, the number and percentage of children of parents of purely American birth, had been gradually lessening, in proportion to the whole number of births, with a single exception, for a period of at least twenty years, until, in the year 1876, it was less than 41 per cent. In the following year there was a turn in the tide, and since then the births of children of purely American parentage, have gradually, though slightly, increased.

During the same years, until 1877, the children of purely foreign parentage, with one exception, were in excess.

At the same time, during a period of twenty-two years, from 1858, to 1879, inclusive, the births of children in the class of mixed parentage,—that is, of American father and foreign mother, and *vice versa,*—had increased from 7.17 per cent., to 15.90 per cent.

These facts are in evidence that the sentiment of class prejudice has been gradually lessening in the communities, a topic which will be further considered when the events under the title of Marriages are taken up for report.

In Table XXII., it will be seen that there were more births of children of foreign father and American mother, not only in the year 1879, but in every year since 1862, than there were of American father and foreign mother.

In the statistics of Marriage it will be seen that more foreign grooms took American brides than *vice versa.*

Table XXIII. shows a larger percentage of children born in 1877, 1878 and 1879, of purely American, than purely foreign parentage. But this is true *only* in the proportion to the *whole number of births* during these years, and not in the proportion of the births to the *whole population.* There being a larger American than foreign population, it might reasonably be supposed, that not only would there be a larger number of births of children of American parentage, but that the percentage would be in a ratio equal to the American population. Such supposition is, however, not borne out by the facts as presented in the statistics.

Unfortunately, at the time of making up this report, the returns of the Census of 1880, in regard to class population in Rhode Island, had not been officially declared, and therefore no calculation of percentages of births according to the relative number of class population, could correctly be made.

In order to contrast the number and percentages of the children born in the different classes, as seen in the two preceding Tables, with the percentages according to the population, for the same number of years, with the exception of 1879, for reasons stated above, the following Table, introduced in the report for 1878, is again presented:

TABLE XXIV.

CHILDREN WITH	1878.	1877.	1876.	1875.	1874.	1873.	5 years. 1868 to 1872.	5 years. 1863 to 1867.	5 years. 1858 to 1862.
American fathers...........	49.89	49.41	46.43	47.88	47.14	50.30	49.06	49.25	52.22
Foreign fathers...............	50.11	50.59	53.57	52.12	52.86	49.70	50.94	50.75	47.78
American mothers............	50.68	50.95	49.01	49.37	49.07	51.86	50.39	49.56	51.95
Foreign mothers................	49.32	49.05	50.99	50.63	50.93	48.14	49.61	50.44	48.05

An examination of Table XXIV. will show that the percentage of children born of American fathers—by the Census rule of classification of population—has been almost uniformly less than the proportion of the American to the whole population, and the percentage of children born of foreign fathers, has been equally uniform in being larger than the proportion of that class to the whole population.

COLORED CHILDREN.

There are some special questions connected with the birth rate and the death rate of the colored people in Rhode Island, and therefore the statistics of that people, though included in the general statistics, have been separately considered.

The number of births of colored children, according to the returns of 1879, is 159. This is smaller by 13, than the number reported in 1878.

The numbers and proportions in regard to sex, were as follows, viz.: Males, 84; Females, 75; or 52.10 males and 47.90 females in each 100 births; or 113.5 males to each 100 females.

The towns from which colored births were reported, and the number in each, are as follows:

Bristol	1	Burrillville	1	North Kingstown	4
Warren	1	Cranston	4	South Kingstown	6
East Greenwich	4	East Providence	4	Richmond	1
Warwick	3	Johnston	3	Westerly	1
Portsmouth	1	Pawtucket	8		
Newport City	13	Providence City	104		
		Total	159		

NUMBER OF THE CHILD OF THE MOTHER.

In the Report of the State Board of Health for 1878, the following remarks will be found under the above heading: "The following Table will be found interesting, as showing the capacity of the females of Rhode Island for long periods and frequent repetition of child-bearing. The general condition of the public health, and the physical vigor and power of endurance of any class of people, may be determined in a large measure by such statistics. In Rhode Island, however, they would be less reliable than in sections of this or other countries, where the disposition to avoid a repetition of child-bearing, or of avoiding it entirely, was less universal."

The Table shows the number of the child of the mother; that is, how many of the children born were reported as the first, second, third, &c., of their respective mothers. The statistics on this subject begin with the year 1857, and the following Table includes the children reported in 1878, and in 1879, and also the total for twenty-two years, 1857 to 1878, inclusive:

Table XXV.

Number of the Child of the Mother.	1879.	1878.	22 years. 1857 to 1878.
First	1,435	1.462	27.268
Second	1.194	1,360	22.487
Third	1,008	1,069	17.425
Fourth	809	826	13,028
Fifth	593	589	9,685
Sixth	427	489	6.999
Seventh	309	319	4,887
Eighth	221	238	3,316
Ninth	138	136	2.200
Tenth	77	96	1,442
Eleventh	53	54	806
Twelfth	37	38	498
Thirteenth	29	18	242
Fourteenth	10	8	122
Fifteenth	5	7	70
Sixteenth	4	2	33
Seventeenth	1	1	25
Eighteenth	0	1	7
Nineteenth	0	0	5
Twentieth	0	0	3
Twenty-first	0	1	3
Twenty-second	0	0	2
Total	6.350	6,714	110,653

In the year 1879, of the whole number of births (6,350) reported in Rhode Island, 1,435, or 22.59 per cent., were the first children of the mother. The proportion is larger than that in 1878, but considerably smaller than the average of the last twelve years, which is about 25 per cent. The proportion of the second children of the mother, 18.80 per cent., is smaller than that of 1878, and also smaller than the general average of the last twelve years.

The above Table does not include all the births reported during the period of twenty-three years, for the reason that the returns seldom give the number of child of the mother, of the entire number of children born in any one year.

The following Table shows what percentage of the children born in each of the last six years, were the first, second, &c., children of the mothers, and also the average percentage of the same for a period of ten years, from 1868 to 1877, inclusive:

TABLE XXVI.

NUMBER OF THE CHILD.	1879.	1878.	1877.	1876.	1875.	1874.	10 years. From 1868 to 1877.
First	22.59	21.77	22.93	24.11	24.37	25.54	25.21
Second	18.80	20.26	20.98	20.63	20.80	21.09	20.65
Third	15.87	18.90	16.22	16.04	14.93	15.53	15.49
Fourth	12.74	12.32	12.09	12.00	11.78	10.97	11.37
Fifth	9.33	8.77	9.07	8.42	8.81	8.56	8.38
First to Fifth	79.33	82.02	81.29	81.20	80.69	81.69	81.10
Sixth and over	20.67	17.98	18.71	18.80	19.31	18.31	18.90
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00

It will be observed that the statistics show that of all the children born in Rhode Island during the last twelve years, about one-quarter were the first child of the mother; about one-fifth, the second; about one-seventh, the third, and about one-ninth, the fourth child of the mother.

The number of mothers in Rhode Island bearing ten children or more, is very small, and of that number by far the larger part is of foreign birth.

PLURALITY BIRTHS.

The statistics of plurality births in Rhode Island for 1879, may be found on page 6, Table III. It will be seen that there were sixty-four cases of plurality births during the year; all of twins. The number of children was 128, of which 70 were males, and 58 were females.

Of the 64 cases, 23 were in Providence city; 20 in Providence county towns; 4 in Newport county; 7 in Kent county; 3 in Bristol county, and 7 in Washington county.

The parentage of the same was as follows: Of the cases, 31 were purely American; 12, Irish; 3, English; 2, Scotch; 3, British American; 1, Swedish; 2, Portuguese, and 10 of mixed parentage, of which 3 were of American fathers, and 4 of American mothers.

In regard to season, they occurred as follows:

January	9	April	4	July	6	October	3
February	2	May	5	August	9	November	3
March	3	June	5	September	6	December	9
	14		14		21		15

The general statistics of births reported in Rhode Island during a period of twenty-seven years, that is, from 1853 to 1879, inclusive, are as follows:

126,913 cases of single births	giving	126,913 children.
1,363 cases of twin births	giving	2,726 children.
18 cases of triple births	giving	54 children.
128,294 cases of child-birth	giving	129,693 children.

Of the whole number of cases of child-birth (128,294) during the twenty-seven years, one in 94.1 produced twins, and one in 7,127 produced triplets.

Of the whole number of children born during the same period, (129,693,) ascertained from the reports, one in every 47 was a twin, and one in every 2,376 was a triplet.

Of the 1,381 cases of plurality births which have occurred in the State during the last twenty-seven years, there were 591 cases in which both parents were Americans; 667 cases in which both parents were foreign; 115 cases in which the parentage was mixed; that is, one American and one foreign parent; and 8 in which the parentage was not stated.

The whole number of children born in plurality cases during the twenty-seven years was 2,780; of whom 1,398 were males, and 1,378 were females; the sex of the remaining four was not given.

STILL-BORN CHILDREN.

The statistics in relation to still-born children, as stated in previous reports, are obtained from the returns of deaths, but are not numbered with, or in any way included in, the statistics of this or previous reports. For the reason that they occupy a somewhat anomalous position in the statistics of life and death, they are given a separate consideration.

The whole number of still-born children reported in Rhode Island for the year 1879 was 216; this is 32 less than for the year 1878, and 26 less than for the year 1877.

The following are the numbers reported from the different larger divisions of the State:

Bristol County	7	Providence County, Towns	45
Kent County	9	Providence City	121
Newport County, Towns	4	Washington County	19
Newport City	11	Whole State	216

There were ten towns from which no report of still-born children was received: one more than in 1878, and four less than in 1877.

Sex.—Of the 216 still-born children, 124 were males and 92 females.

Parentage.—Of the 216 births of this class, the parentage was divided as follows:

American parents	118
Foreign parents	98
Whole number	216

Color.—The divisions of the still-born children in respect to color were as follows:

White	204	Black	12

The number of colored still-born children was the same as in 1878, and three less than in 1877.

Of the white still-born children there were 32 less than in 1878, and 23 less than in 1877.

Season.—The number of still-born children reported in each of the several months of 1879 was as follows:

January	19	May	19	September	21
February	16	June	18	October	20
March	14	July	25	November	15
April	10	August	17	December	22
Total	216				

SUMMARY OF STILL-BORN.

The following Table shows the number and sex of the still-born children, whose births were reported in Rhode Island, during the period from June 1, 1852, to December 31, 1878, and for each of the last five years:

TABLE XXVII.

SEX.	1879.	1878.	1877.	1876.	1875.	June 1, 1852, to Dec. 31, 1878.	Total.
Males	124	149	147	131	133	2,843	2.967
Females	92	99	95	92	113	1,890	1.982
Sex not stated	......	......	......	......	......	52	52
Total	216	248	242	223	246	4,785	5,001

It will be seen that the whole number of still-births reported in the State since June 1, 1852, is 5,001. Of the sex of this number, there were 2,967 males, 1,982 females, and of 52 the sex was not given. The ratio of occurrence, in regard to sex, would therefore be as follows: In each 100 children there were 60 males, and 40 females; or for every 100 females, there were 150 males.

It will be seen that the proportion for the year 1879 varies considerably from the average of a period of more than twenty-seven years. The proportion standing 135 males to each 100 females. Why there should be constantly, in every year, so large an excess of males among the still-born, is a question of difficult solution.

Season of Still-births.—The following summary will show the number of still-births that have been reported in Rhode Island, during a period of twenty-seven years, from 1853 to 1879, inclusive, with the months and quarters in which they occurred:

STILL-BORN—TWENTY-SEVEN YEARS—1853–1879. SEASON.

January	449	April	377	July	431	October	384
February	415	May	390	August	450	November	417
March	397	June	368	September	421	December	471
1st Quarter	1,261	2d Quarter	1,135	3d Quarter	1,302	4th Quarter	1,272

First six months, 2,396; second six months, 2,574; total, 4,970.

PARENTAGE OF STILL-BORN.

The question of the parentage of the still-born has been heretofore considered as one of some importance, or at least of some interest. It is chiefly important in regard to the changes that have occurred in the proportional number of the still-born of American and foreign origin, respectively, from year to year. Previous to 1859, the parentage of the still-born was not reported.

During the thirteen years from 1859 to 1871, inclusive, the whole number of still-births reported was 2,263, of which the parentage was as follows: American, 927; foreign, 1,334; unknown, 2.

The proportions were, therefore, 41.0 American and 59.0 foreign in each 100.

To show the changes that have occurred, from year to year, in the percentages of parentage of the still-born, in contrast with the percentages of the same nativities to the whole number of births, the following resumé is presented:

Years.	Of Whole No. Births. American. Foreign.	Of Whole No. Still-born. American. Foreign.
1871	49.36 and 50.64 in each 100	41.00 and 59.00 in each 100.
1872	47.59 and 52.41 in each 100	41.25 and 58.75 in each 100.
1873	50.30 and 49.70 in each 100	59 21 and 40.79 in each 100.
1874	47.14 and 52.86 in each 100	50.00 and 50.00 in each 100.
1875	47.88 and 52.12 in each 100	49.19 and 50.81 in each 100.
1876	46.43 and 53.57 in each 100	45 76 and 54.24 in each 100.
1877	49.41 and 51.59 in each 100	53.31 and 46.69 in each 100.
1878	49.35 and 50.65 in each 100	55.65 and 44.35 in each 100.
1879	50.53 and 49.47 in each 100	54.63 and 45.37 in each 100.
15 years.		
1858–1872	50.54 and 49.46 in each 100	41.25 and 58.75 in each 100.
7 years.		
1873–1879	48.57 and 51.43 in each 100	52.55 and 47.45 in each 100.

MARRIAGES, 1879.

The number of marriages reported in Rhode Island during the year 1879 was 2,396. This number was 72 more than in 1878, and 114 more than in 1877.

The general statistics of marriages in 1879, in relation to season and number, in the different divisions of the State, may be found in Table IV., on the seventh page.

SEASON.

The number and percentage of marriages in Rhode Island, in each quarter of the year 1879, may be found in the following Table, together with the aggregate number and percentage in each quarter, for the twenty-five years previous, viz., from 1853 to 1878, inclusive:

TABLE XXVIII.

YEARS.		First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.	Whole Year.
1879............	Number.........	521	611	554	710	2,396
	Percentage.......	21.74	25.50	23.13	29.63	100.00
26 Years. 1853–1878	Number..........	11,341	12,500	11,992	15,004	50,837
	Percentage.......	22.31	24.59	23.59	29.51	100.00

The year 1879 was no exception to the rule, that the largest number of marriages in Rhode Island are solemnized in the last quarter, and the smallest number in the first quarter of the year. It will be noticed that the percentage of the last quarter in 1879, is almost exactly the same as the average of twenty-six years of registration, and that of the first quarter of 1879, varying from the same by only about one-half of one per cent.

The marriages in the third quarter have also been uniformly less in number than those in the second.

The lessened number of marriages in the first quarter, is undoubtedly due, in a large measure, to the ecclesiastical sentiments of a considerable part of the population; and the larger number of the last quarter, to the instinct for companionship manifested more strongly during the cold season, in connection with the greater exuberance of the social sentiments so universally prevalent during the season of the holidays.

NATIVITY OF PERSONS MARRIED.

The following Table shows the number of marriages, according to the nativity of the parties, for each of the last eight years, and also for the aggregate of twenty years, from 1858 to 1877, inclusive:

TABLE XXIX.

BIRTH-PLACE.	1879.	1878.	1877.	1876.	1875.	1874.	1873.	1872.	20 years. 1858-77. Total.
United States....	1,511	1,455	1,407	1,402	1,467	1,495	1,620	1,488	25,674
Foreign Countries................	467	493	496	513	614	695	702	690	10,963
American groom, foreign bride....	209	181	177	144	191	154	138	155	2.410
Foreign groom, American bride. ..	209	195	202	194	213	197	170	204	2,750
Not stated........................	... ..	......	......	......	......	......	......	......	64
Total...............	2,396	2.324	2.282	2,253	2.485	2.541	2.630	2.537	41,861

There was a very considerable increase in the number of marriages reported in 1879, in all classes, except that in which both parties were foreign born. That class has not only been declining in numbers gradually, in almost every one of the last twelve years, but, as will be seen on another page, has, as might be expected, declined also in percentages.

This fact was accounted for in the Report for 1878, on the suggestion that the proportional number of adults of strictly foreign birth, among the so called foreign population, is decreasing: diminished by lessened immigration and by death. The number of those in the periods of life in which the marriage relation is most frequently assumed, is diminishing from advancing age. The number of marriages of persons of purely foreign birth must, therefore, under the existing order of events, continue to decrease, while the number of those born of parents of foreign birth, but are themselves of American birth, who have attained, or are rapidly attaining the marriageable age, are steadily increasing, and must continue to help swell the number of marriages of the native Americans.

In both classes of mixed marriages, that is, where one party was American born and the other foreign born, there was a larger number than ever before reported. In that class in which the groom was of foreign birth and the bride American, there has been invariably, in every year previous to 1879, the largest number of marriages; but the difference between the two has been gradually lessening, and they now, in 1879, stand on an equal footing.

In the following Table are given the percentages of American, foreign and mixed marriages in each of the last eight years, and in the aggregate for the twenty years, 1858 to 1877, inclusive. By *mixed* marriages are meant those where one party was of American and the other of foreign birth:

TABLE XXX.

BIRTH-PLACE.	1879.	1878.	1877.	1876.	1875.	1874	1873.	1872.	20 years. Total.
United States..........................	63.06	62.60	61.66	62.23	59.04	58.84	61.60	58.65	61.33
Foreign Countries	19.49	21.22	21.73	22.77	24.70	27.35	26.69	27.20	26.19
Mixed..	17.45	16.18	16.61	15.00	16.26	13.81	11.71	14.15	12.48
Total....................................	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

The percentage of marriages of parties exclusively American, in 1879, as shown in the above Table, is larger than during any one of the previous years shown in the Table, and also larger than the average of twenty-two years.

Attention is particularly called to the diminished percentage of marriages among the foreign born. From a percentage of 27.35, in 1874, the number has gradually fallen off to a percentage of 19.49, in 1879. Reference in regard to this fact is made to remarks under Table XXIX.

AGES OF PERSONS MARRIED.

The number of persons married in Rhode Island, during the year 1879, in the different periods of life, is shown in Table V., on page 8. The number of each sex, in each division of age, can also be found in the following Table:

Table XXXI.

1879.	Under 20.	20 to 25.	25 to 30.	30 to 35.	35 to 40.	40 to 45.	45 to 50.	50 to 55.	55 to 60.	60 to 65.	65 to 70.	70 to 75.	75 to 80.	80 to 85.	85 to 90.	Not stated.
Males	94	905	691	304	158	81	46	37	23	21	17	9	2	2	1	5
Females	545	974	465	177	114	42	32	19	16	5	1	....	....	....	....	6
Total	639	1,879	1,156	481	272	123	78	56	39	26	18	9	2	2	1	11

The caprices of social sentiment and affection are well presented in Table V., on the eighth page. The record there will show that six men between 40 and 45 married women under 20; seven men between 45 and 50, four between 50 and 55, and three between 55 and 65, took wives between 20 and 25. There were also three grooms between 20 and 25 who took brides between 35 and 40; and one groom of 20 years who took a bride of 45. Thirty-four grooms took brides of the age of ten years or more older than themselves. Two hundred and seventeen women were married to men one or more years younger than themselves. One groom between 85 and 90 took a bride between 55 and 60.

The following Table shows the number of persons married in Rhode Island, including both sexes, in each division of ages, in each of the last fourteen years, from 1866 to 1879, inclusive:

Table XXXII.

YEARS.	Under 20.	20 to 25.	25 to 30.	30 to 35.	35 to 40.	40 to 45.	45 to 50.	50 to 55.	55 to 60.	60 to 65.	65 to 70.	70 to 75.	75 to 80.	80 to 85.	85 to 90.	Not stated.
1866	693	1,931	1,025	419	213	127	81	59	25	21	12	7	....	....	...	23
1867	696	1,886	1,104	416	211	148	91	48	37	18	18	5	3	1	....	6
1868	644	1,835	1,050	432	219	133	82	61	30	29	11	8	4	....	....	32
1869	642	1,814	1,051	468	227	134	79	46	35	15	11	2	3	2	...	49
1870	744	1,883	1,084	415	216	159	86	64	26	24	12	3	2	....	....	6
1871	697	1,914	1,118	392	228	115	73	56	35	22	6	7	3	....	....	6
1872	786	2,073	1,182	434	237	131	81	61	43	21	13	6	1	....	....	5
1873	762	2,177	1,156	507	253	140	87	68	35	24	12	6	6	....	....	27
1874	770	1,992	1,179	459	268	159	101	52	36	39	8	9	1	....	....	9
1875	681	2,058	1,108	475	252	150	101	60	32	29	13	4	1	....	....	6
1876	691	1,741	1,041	450	224	154	80	53	27	19	12	3	2	....	...	9
1877	631	1,745	1,118	459	244	125	92	52	46	14	15	11	2	1	....	9
1878	618	1,832	1,123	441	259	162	74	49	39	20	17	2	4	....	....	8
1879	639	1,879	1,156	481	272	123	78	56	39	26	18	9	2	2	1	11

The increased number of marriages, in 1879, shows in the above Table, as might be expected, a larger number in nearly every one of the division of ages as compared with 1877 and 1878. The number between 40 and 45 years is 39 less than in the previous year, and between 50 and 60 years, it is the same. With the exception of 1873, in which year there was the largest number of marriages ever recorded in the State, the number between 30 and 35 was larger than in any preceding year.

For the first time, a column is presented for the number of those married who have reached the age of 85 years or more.

PROPORTION OF SEX.

The following Tables will show the percentages of males and females married, in each division of ages, in each of the last twenty years:

TABLE XXXIII.

	YEARS.	Under 20.	20 to 25.	25 to 30.	30 to 40.	40 to 50.	50 & over.	Total.
MALES.	1860	5.0	42.8	26.9	16.3	5.7	3.3	100.00
	1861	4.6	44.5	25.4	15.5	5.8	4.2	100.00
	1862	4.2	37.8	27.9	18.3	5.9	5.9	100.00
	1863	3.5	38.0	29.6	17.2	5.8	5.9	100.00
	1864	4.3	38.8	27.3	17.9	7.4	4.3	100.00
	1865	3.5	37.0	28.4	18.9	7.5	4.7	100.00
	1866	5.3	40.9	27.0	16.4	6.3	4.1	100.00
	1867	4.3	40.1	27.9	16.8	6.8	4.1	100.00
	1868	4.1	39.9	28.2	17.1	6.1	4.6	100.00
	1869	4.3	39.6	27.7	18.5	6.1	3.8	100.00
	1870	4.8	40.4	28.1	16.0	6.4	4.3	100.00
	1871	5.3	40.1	28.9	16.5	4.9	4.3	100.00
	1872	4.3	41.3	28.2	16.6	5.2	4.4	100.00
	1873	3.8	42.4	26.7	17.0	6.0	4.1	100.00
	1874	4.1	40.4	27.2	17.5	6.4	4.4	100.00
	1875	3.5	40.9	27.8	17.5	6.1	4.2	100.00
	1876	5.1	37.5	28.6	17.9	5.6	4.3	100.00
	1877	4.3	36.0	30.2	18.7	5.9	4.9	100.00
	1878	3.9	38.5	29.0	18.0	6.3	4.3	100.00
	1879	3.9	37.8	28.8	19.3	5.4	4.8	100.00

TABLE XXXIV.

	YEARS.	Under 20.	20 to 25.	25 to 30.	30 to 40.	40 to 50.	50 & over.	Total.
FEMALES.	1860	25.8	44.1	17.0	9.1	2.6	1.4	100.00
	1861	29.6	42.0	15.2	7.8	4.1	1.3	100.00
	1862	24.9	41.3	16.7	11.8	4.1	1.2	100.00
	1863	24.9	42.6	16.9	9.8	4.1	1.7	100.00
	1864	24.2	43.4	17.8	10.3	2.9	1.4	100.00
	1865	22.6	42.3	19.1	11.0	3.5	1.5	100.00
	1866	24.7	42.9	17.4	11.0	2.7	1.3	100.00
	1867	25.4	40.5	19.3	10.0	3.4	1.4	100.00
	1868	24.4	40.9	18.1	11.6	3.3	1.7	100.00
	1869	24.1	40.5	18.7	12.1	3.4	1.2	100.00
	1870	26.8	39.4	17.9	10.8	3.9	1.2	100.00
	1871	24.6	41.9	19.1	10.1	3.1	1.2	100.00
	1872	26.7	40.5	18.4	9.9	3.2	1.3	100.00
	1873	25.3	40.8	17.5	12.0	2.7	1.7	100.00
	1874	26.3	38.1	19.3	11.1	3.9	1.3	100.00
	1875	23.9	42.1	16.8	11.8	4.0	1.4	100.00
	1876	25.6	39.8	17.6	12.0	3.7	1.3	100.00
	1877	23.4	40.4	18.8	12.1	3.6	1.7	100.00
	1878	22.7	40.4	19.3	12.2	3.8	1.6	100.00
	1879	22.8	40.7	19.4	12.1	3.0	2.0	100.00

Tables XXXIII. and XXXIV. are instructive in that they show an improved public sentiment in the direction of marriages at a premature age. While, as in all social statistics, the percentages vary from year to year, the average of the last ten years in the marriages of persons under 20 years of age, as compared with the ten years preceding the last ten, has declined. In marriages of females, the aggregate percentage under 20 years of age, during the ten years from 1860 to 1869, inclusive, was 27.06; during the ten years from 1870 to 1879, inclusive, it was 24.60. The relative proportions during the last two years have, however, been almost exactly alike, in each sex. Among the males, the proportions have not varied very much between the two periods of ten years, in the marriages between the ages of 20 and 25; and between 25 and 30; but between 30 and 40, there has been an increase. Among the females, the proportions between the ages of 20 and 25; and between 25 and 30; have been about the same during each ten years; but between the ages of 30 and 40 there has been a decided increase in the last ten years. The proportions in the more advanced ages, not stated above, in either of the periods of ten years, have not materially changed in either sex.

It will be noticed that the percentage of males married under 20 years of age is in every year greatly less than that of females.

The average of twenty years shows that in every 100 males married, there were about four under 20 years of age, while in every 100 females married, there were about twenty-six under 20 years of age.

COLORED MARRIAGES.

There were 61 marriages of persons of color in Rhode Island during the year 1879. They were reported from the following towns, the number in each town being set opposite the name:

Providence City	44	East Greenwich	2
Newport City	7	Charlestown	2
South Kingstown	2		

Pawtucket, Scituate, Hopkinton and Westerly, each one.

There is a considerable falling off from the number in 1878, which was 80. The number in 1879, however, is nearly the average of several previous years.

It may be of interest to see what the proportion of colored persons married in 1876, 1877, 1878 and 1879, bears each year to the whole number of colored persons in the State, and also the proportions of the same, compared with the proportions which the whole number of persons married, bear to the whole population of the State, for the same periods of time.

	1879.	1878.	1877	1876.
Ratio of whole number of persons married to whole population of the State.	One in every	One in every	One in every	One in every
	57.8	55.7	56.6	57.3
Ratio of colored persons married to whole of colored population in the State.				
	51.4	39.1	49.0	53.1

The fluctuations in the proportions of persons married, to the population, in both white and colored, are quite apparent in the above summary. It will be seen that in both classes the proportions are nearly the same as in 1876, with greater changes in the colored than in the white. The ratio, however, has been uniformly larger in the colored.

DIVORCES, 1879.

The number of applications for divorce reported from the different counties in Rhode Island, in 1879, was 255. This number is 3 less than in 1878, and 2 less than in 1877.

During the year 1879, there were 246 applications for divorce granted, which were 50 more than in 1878, and 68 more than in 1877.

The following Table shows the number of applications for divorce, and the number granted, in 1879, in each county of the State; also, the causes alleged for the applications. Full reliance cannot be placed in the causes alleged, the real causes, no doubt, being sometimes withheld:

TABLE XXXV.

COUNTIES.	Number of Applications.	Number Granted.	CAUSES ALLEGED.						
			Adultery.	Extreme Cruelty.	Willful Desertion.	Continued Drunkenness.	Neglect to Provide Necessaries, &c.	Other Gross Misbehavior.	Impotency.
Bristol	7	5	1	2	5	3	3	2	......
Kent	18	19	2	1	9	2	4	......	......
Newport	9	7	3	1	4	......	3	......	......
Providence	196	195	39	40	125	34	138	31	1
Washington	25	20	3	5	10	3	8	......	......
Whole State	255	246	48	49	153	42	156	33	1

As usual, there are a large number of alleged causes given as a reason why divorce should be granted. Of the whole number, 482, of causes alleged, 156 were for "neglect to provide necessaries of life;" 153 for "willful desertion:" 49 for "extreme cruelty," and 48 for "adultery." The number of each of the causes alleged vary from year to year, but the same reappear every year. In 1879 an additional cause, "impotency," was averred.

As some of the applications for divorce in each year are continued, and may be granted or refused in some other year, the number granted or refused will be shown more accurately by taking the aggregate of applications for several years.

The following are the numbers for the last seven years:

	Applications for Divorce.	Divorces Granted.	Applications refused or continued or withdrawn.
1873	261	173	88
1874	276	242	34
1875	227	158	69
1876	254	196	58
1877	257	178	79
1878	258	196	62
1879	255	246	9
7 years total	1,788	1,389	399

From the above, it appears that nearly 78 per cent. of all the applications were granted.

The following Table shows the number of divorces granted in each county, and in the whole State, in each of the last eleven years, with the proportion of marriages to each divorce granted, in each year:

Table XXXVI.

YEARS.	Bristol County.		Kent County.		Newport County.		Providence County.		Washington County.		Whole State.	
	Divorces Granted.	Marriages to one Divorce.	Divorces Granted.	Marriages to one Divorce.	Divorces Granted.	Marriages to one Divorce.	Divorces Granted.	Marriages to one Divorce.	Divorces Granted.	Marriages to one Divorce.	Divorces Granted.	Marriages to one Divorce.
1869	10	10.6	15	12.5	6	27.7	120	13.8	11	15.5	162	14.1
1870	3	27.7	18	11.8	6	26.3	152	11.3	21	9.3	200	11.8
1871	5	16.8	11	17.9	4	49.7	123	13.3	18	11.4	161	14.5
1872	8	10.2	13	15.7	8	22.9	149	12.6	22	8.9	200	12.7
1873	6	16.2	22	9.8	8	21.9	131	14.8	6	33.7	173	15.2
1874	10	8.9	20	8.0	6	29.0	190	10.0	16	11.6	242	10.5
1875	2	50.0	18	8.8	7	23.4	120	14.9	11	20.5	158	15.7
1876	6	14.5	15	12.8	7	20.5	148	11.1	20	8.8	190	11.5
1877	7	12.0	9	16.3	7	26.0	134	12.4	21	9.9	178	12.8
1878	4	26.0	11	13.3	13	12.8	156	10.9	12	17.3	196	11.9
1879	5	18.8	19	9.0	7	24.1	195	9.1	20	9.7	246	9.7

The number of divorces granted in 1879, was very considerably larger than in any preceding year. That there should be a proportion of more than one divorce to every ten of the marriages in Rhode Island, is evidence of a lamentable misapprehension of the obligations assumed in the marriage contract.

DEATHS, 1879.

There were 4.472 deaths reported in Rhode Island during the year 1879. The number is 31 larger than in 1878, and larger by 22 than in any preceding year.

The death rate, as previously shown in Table XIV., on the forty-eighth page, was one to every 61.87 of the population, or 16.2 in each one thousand.

In 1878, as will be found in the Report of that year, with the number of deaths only 31 less, the death rate was one to every 58.10 of the population, or 17.2 in each thousand.

The apparent discrepancy is owing to the basis of comparison. That of 1878 is according to the Census of 1875, and that of 1879, according to the Census of 1880. In reality, the rate of mortality, in the whole State, during the last six years has not varied fourteen hundredths of one per cent.

In the different localities in the State, the death rate varies very considerably, as before stated, and as might be expected. The causes are various, independent of the prevalence of epidemics.

The city of Providence contains rather more than three-eights of the whole population of the State, and presents the conditions of city life under circumstances as favorable to longevity, probably, as any city of considerable magnitude in the country.

In the Report of 1878, a synopsis was presented showing the difference in the death rates of the city and the State, during three years, from 1876 to 1878, inclusive.

In the following summary there will be presented comparisons of the same, for the three years, from 1877 to 1879, inclusive. It will be observed that the proportions of 1879 are in accordance with the Census of 1880:

		Population.	Number of Deaths.	One death in every	In each 1000.
1877.	Providence City	100.675	1,938	51.90	19.25
	Rest of State	157,564	2,512	62.70	15.94
	Whole State	258.239	4,450	58.30	17.20
1878.	Providence City	100,675	1,989	50.62	19.89
	Rest of State	157.564	2,452	64.26	15.56
	Whole State	258.239	4,441	58.10	17.20
1879.	Providence City	104,862	2,026	51.76	19.32
	Rest of State	171,848	2,446	70.25	14.02
	Whole State	276,710	4,472	61.87	16.20

From the above, it appears that during the year 1879, there was a greater difference in the rates of mortality between the city of Providençe and the rest of the State, and also between the city and the whole State, than in either of the two preceding years. It is known that the year 1879 was unusually healthy in *nearly all* the towns in the State. At the same time, it was the experience of nearly all the medical profession, that, though there was a less number sick, there was a larger percentage of deaths among that number. In the city of Providence, the mortality was largely increased by an epidemic of Scarlet Fever, which alone caused the death of 252 individuals.

It should also be stated that a part of the difference between Providence city and the rest of the State, is due to the failure, in some of the towns, to report the whole number of deaths that occur in them. The subject of contrast between the city and the rest of the State, will be again taken up under the head of "Season and Mortality."

SEX OF DECEDENTS.

Of the 4,472 persons, whose deaths were returned during the year 1879, 2,183 were males, and 2,289 were females; the ratio standing at 95.37 males to each 100 females, or 48.81 males, and 51.19 females in each 100 decedents.

The following Tables, XXXVII. and XXXVIII., show the number and proportion of males and females among the decedents, and also among the children born in Rhode Island, during the ten years, 1853 to 1862, inclusive; also in each of the seventeen years from 1863 to 1879, inclusive. and for the entire period of twenty-seven years:

TABLE XXXVII.

DEATHS.	10 years, 1853-1862	10,930 males	11,269 females	or 96.9 males to 100 females.
	1863	1,621 males	1,586 females	or 102.2 males to 100 females.
	1864	1,633 males	1,727 females	or 94.5 males to 100 females.
	1865	1,686 males	1,719 females	or 98.1 males to 100 females.
	1866	1,497 males	1,473 females	or 101.6 males to 100 females.
	1867	1,442 males	1,447 females	or 99.7 males to 100 females.
	1868	1,413 males	1,499 females	or 94.3 males to 100 females.
	1869	1,696 males	1,686 females	or 100.6 males to 100 females.
	1870	1,588 males	1,650 females	or 96.2 males to 100 females.
	1871	1,621 males	1,723 females	or 94.1 males to 100 females.
	1872	2,118 males	2,129 females	or 99.4 males to 100 females.
	1873	2,166 males	2,237 females	or 95.5 males to 100 females.
	1874	2,111 males	2,118 females	or 99.7 males to 100 females.
	1875	2,108 males	2,209 females	or 95.4 males to 100 females.
	1876	1,969 males	2,147 females	or 91.7 males to 100 females.
	1877	2,132 males	2,318 females	or 92.0 males to 100 females.
	1878	2,161 males	2,280 females	or 94.8 males to 100 females.
	1879	2,183 males	2,289 females	or 95.4 males to 100 females.
	27 years	42,075 males	43,506 females	or 96.7 males to 100 females.

TABLE XXXVIII.

BIRTHS.	10 years, 1853-1862	18,377 males	17,260 females	or 106 4 males to 100 females.
	1863	1,892 males	1,788 females	or 105.8 males to 100 females.
	1864	1,949 males	1,942 females	or 100.3 males to 100 females.
	1865	2,096 males	1,857 females	or 112.9 males to 100 females.
	1866	2,546 males	2,356 females	or 108.1 males to 100 females.
	1867	2,655 males	2,464 females	or 107.7 males to 100 females.
	1868	2,745 males	2.627 females	or 104.5 males to 100 females.
	1869	2.685 males	2,560 females	or 104.9 males to 100 females.
	1870	2.679 males	2.536 females	or 105.6 males to 100 females.
	1871	2.878 males	2.800 females	or 102,8 males to 100 females.
	1872	3.085 males	3.058 females	or 100.9 males to 100 females.
	1873	3.135 males	2,887 females	or 108.6 males to 100 females.
	1874	3,311 males	3.155 females	or 104.9 males to 100 females.
	1875	3,362 males	3,146 females	or 106 9 males to 100 females.
	1876	3,291 males	3,038 females	or 108.3 males to 100 females.
	1877	3,163 males	3.072 females	or 103.0 males to 100 females.
	1878	3.402 males	3.312 females	or 102.7 males to 100 females.
	1879	3,259 males	3.091 females	or 105.4 males to 100 females.
	27 years	66.510 males	62,949 females	or 105.7 males to 100 females.

There were 22 more males, and 9 more females, among the decedents of 1879, than in the year 1878, and the proportion of males to females was greater, and thereby more nearly equal as compared with the preceding year.

Among the children born there were 143 less males, and 221 less females than in 1878, the inequality of proportion being greater than in the preceding year.

Upon an examination of the foregoing Tables it will be seen that, in the aggregate of twenty-seven years, and also in each of the seventeen years, with three exceptions only, there has been an excess of females in the record of mortality. and an excess of males in the record of births.

As observed in a previous Report, a natural inference would be, that the male portion of the population must be largely in excess of the female portion, and annually increasing.

By reference to Table VII., page 14, in the Report for 1878, it will be seen, however, that by the Census of 1875, the females exceeded the males in the population of the State, by 7,119. (The number of the sexes, by the Census of 1880, had not been made public when this Report was prepared.) The difference in numbers must be accounted for on the supposition of a larger proportional emigration of native males from the State.

SEASON AND MORTALITY.

The whole number of decedents, and the sex of the same, in each month of the year 1879, and in each division of the State, may be found in Table VI., on the ninth page.

The influence of season upon mortality, may be further illustrated by the following Table, which shows the number and percentage of deaths, in each quarter of each of the last five years, and in the aggregate for the twenty-five years, from 1853 to 1877, inclusive:

TABLE XXXIX.

SEASON.	1879.		1878.		1877.		1876.		1875.		1853-1877.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
January-March....	1,185	26.49	1,158	25.87	936	21.03	948	23.03	1,101	25.50	17,646	22.16
April-June....	939	20.99	968	21.81	958	21.53	942	22.89	912	21.13	16,513	20.74
July-September....	1,174	26.26	1,175	26.46	1,317	29.60	1,249	30.34	1,244	28.82	23,464	29.46
October-December	1,174	26.26	1,140	25.86	1,239	27.84	977	23.74	1,060	24.55	22,006	27.64
Total.......... ...	4,472	100.00	4,441	100.00	4,450	100.00	4,116	100.00	4,317	100.00	79,629	100.00

The percentages of mortality in Rhode Island in connection with the season, during 1879, show a marked departure from the rule established by twenty-seven years of registration. As will be seen in the Table above, the third quarter in each year during the last five years, and in the summary of twenty-five years, has invariably shown much the largest proportional number of deaths. In 1879, the third quarter shows the same number as the fourth, and a less number than the first. The greatly increased percentage of the first quarter, quite reverses that of all preceding years. There was an unusual prevalence of diphtheria and scarlatina in some localities during the winter and spring months; and an unusual exemption from diarrhœal diseases, especially cholera infantum, during the hot months throughout the State, which will in considerable measure account for the change in the quarterly percentages of deaths.

The question of the influences of city life upon the status of mortality is often presented, and it has been the custom in former Reports to contrast the city of Providence, which comprises about three-eighths of the entire population of the State, with the rest of the State, in regard to the influence of *season* upon mortality.

The following Table will present a comparison between the city and rest of the State, in relation to the mortality of each section by seasons. It will show the number and percentage of deaths in each quarter of the year 1879, in the city, and in the rest of the State separately; and also the percentage of deaths in each quarter of the year in the city of Providence, for twenty-four years, from 1855 to 1878, inclusive; and in the whole State, including the city, for twenty-six years, from 1853 to 1878, inclusive:

TABLE XL.

SEASON.	1879.				1855–1878.		1853–1878.	
	Providence.		Rest of State.		Providence.		Whole State.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
January—March	514	25.38	671	27.43	7,519	23.89	18,904	23.28
April—June	439	21.66	500	20.44	6,909	21.93	17,481	21.53
July—September	493	24.33	681	27.83	9,353	29.76	24,639	30.37
October—December	580	28.63	594	24.30	7,683	24.42	20,146	24.82
Total	2,026	100.00	2,446	100.00	31,464	100.00	81,170	100.00

It will be observed by an inspection of Table XL., that the differences of the percentages of mortality in the same season in 1879, between the city of Providence and the rest of the State, are very considerable. In the first and third quarters, the proportions were more than three per cent. larger in the rest of the State than in the city, while in the second quarter, it was about one and one-quarter per cent. less, and in the fourth quarter it was more than four and one-quarter per cent. less than in the city. But taking a considerable number of years together, as will be seen in the summaries of twenty-four and twenty-six years, the average percentages of mortality, in the different quarters of the year, vary very little between the city of Providence and the whole State.

It will be understood that the above summary does not show the exact difference between the city and rest of the State, for the reason that the mortality of the different seasons in the city, is included in the general summary of the whole State.

Below may be found a general view of the order of the months, in which occurred from the largest to the smallest number of deaths, in the whole State, in each of the last five years:

TABLE XLI.

1879.		1878.		1877.		1876.		1875.	
1. January	468	December	421	September	454	August	469	August	471
2. August	452	August	420	August	450	July	444	September	419
3. December	395	July	410	October	430	December	348	February	392
4. October	391	January	400	July	413	March	341	January	363
5. November	388	March	396	December	411	September	336	December	358
6. July	383	November	377	November	398	October	334	November	357
7. March	382	February	362	March	347	May	332	July	354
8. April	342	April	350	May	343	April	329	March	346
9. September	339	September	345	January	323	February	312	October	345
10. February	335	October	342	April	310	January	295	May	333
11. May	318	June	310	June	305	November	295	April	314
12. June	279	May	308	February	266	June	281	June	265
	4,472		4,441		4,450		4,116		4,317

During the last three years, the changes in the first four of the months in each year, in which occurred the largest number of deaths, have been unprecedented. August, which has taken the lead, with few exceptions, for a quarter of a century, has been second in order since 1876. January, which was the tenth in order in 1876, and the ninth in 1877, takes the first place in 1879. December, which was first in 1878, and fifth in 1877, follows August, and takes the second place. October, usually one of the healthiest months in the year, and tenth in order in 1878, occupies the fourth place in order in 1879. May and June are the last in order in 1879, and with few exceptions have been for the whole period of registration. Nearly all diseases assume a milder form during those months.

In the city of Providence, in 1879, the largest number of deaths occurred in December; but taking a period of twenty-five years, the greatest number of deaths have occurred in the following months, in the order named: 1. August. 2. July. 3. September.

PARENTAGE OF DECEDENTS.

During the year 1879, there were reported from the different towns in Rhode Island the deaths of 4,472 persons. Of these, 2,294 were of American parentage, and 2,178 were of foreign parentage.

The parentage in these Reports, when not otherwise specified, is reckoned according to the reported nativities of the fathers.

The parentage of the decedents, in the different towns in the State, may be found in the general abstract for 1879, on the second and third pages.

There were no decedents of foreign parentage, in 1879, reported from the following five towns, viz.: West Greenwich, Little Compton, New Shoreham, Foster and Exeter.

The decedents of foreign parentage in the following six towns, numbered three or less, viz.: Barrington, Coventry, Jamestown, Middletown, Charlestown and Hopkinton.

The towns in which the number of decedents of foreign parentage exceeded those of American parentage, were as follows: Warren, Cumberland, Lincoln, North Providence, North Smithfield, Pawtucket, Woonsocket and Providence. In Johnston, the number of each class was equal. In Cranston there was one more of American than of foreign.

In the towns in which there was an excess, above the American, of decedents of foreign parentage, the proportions of excess were about as follows: Warren, 33 per cent.; Cumberland, 80 per cent.; North Providence, 40 per cent.; North Smithfield, 30; Pawtucket, 2.5; Providence city, 1.5 per cent. In Lincoln there were nearly three times as many of foreign as of American parentage, and in Woonsocket more than four times as many.

The following Table gives the number and percentage of decedents of American and of foreign parentage, in each of the last five years; and in the aggregate for twenty-two years, or from 1858 to 1879, inclusive:

TABLE XLII.

PARENTAGE.	1879.		1878.		1877.		1876.		1875.		1858–1879.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
American..........	2,294	51.29	2,281	51.36	2 279	51.21	2,150	52.24	2,466	57.12	52,332	56.25
Foreign...........	2,178	48.71	2,160	48.64	2,171	48.79	1,966	47.76	1,851	42.88	40,702	43.75
Total.............	4,472	100.00	4,441	100.00	4,450	100.00	4,116	100.00	4,317	100.00	93,034	100.00

It will be seen that the decedents of foreign parentage are steadily increasing in number and proportion from year to year. Previous to 1874, the percentage of decedents of foreign parentage had averaged, during a period of seventeen years, less than 41.00 per cent. An examination of the above Table will show that the average proportion of the same parentage during the last four years, is 48.5 per cent. The proportional average of decedents of American parentage, during the same four years, is 51.5 per cent., while the average of decedents of the same parentage, during a period of seventeen years previous to 1874, was 58.28 per cent.

It should be borne in mind, that the term "foreign parentage," as made use of above, does not mean that the decedents were all foreign born, but includes the foreign born, and all those whose fathers were of foreign birth, though of themselves American born.

It will thus be seen that as the population by foreign parentage increases, the death rate must also increase. But the percentage of mortality, under the term "foreign parentage," must, in a few years, decline, because the children born in the United States of foreign parents are rapidly reaching the adult age, and as they become parents, their children will be classed as of American parentage.

AGE OF DECEDENTS.

A statement of the aggregate and average age of all the reported decedents of each sex, in each town and county in the State, in 1879, may be found in Table I., on pages 2 and 3.

It will there be seen that the average age of all the male decedents, in 1879, was 31.29 years, and the average age of all the female decedents was 33.24 years.

The average age of all the male decedents, in 1878, was 29.02 years, and of female decedents, 31.11 years. The highest average age of male decedents, in any town in the State, in 1879, was 71.9 years, in Charlestown; the highest average age of females, 71.7 years, in Foster.

The lowest average age of male decedents was 5.5 years, in West Greenwich; the lowest average age of females was 1 year, in Jamestown.

There is very little value in the reported average age of decedents in single years, in towns with a few hundred inhabitants, or even a few thousand. Take the town of Jamestown, for instance. In 1878 there occurred the death of a single female, aged 83 years, and the deaths of three males, whose joint ages amounted to 171 years; the aggregate age of all 254 years, and the average age 63.5 years. In 1879 there occurred in that town the death of one male, aged 47 years, and one female, aged one year; aggregate age of all 48 years, and average age 24 years. Thus it will be seen that it is only by the average of a series of years, that an approximation to the relative longevity of the inhabitants of any town can be ascertained.

In Table XV. there will be found the aggregate and average age of all the decedents in the different towns in the State, during a period of ten years. An examination of that Table will show that in a series of years, the average age of the decedents in Jamestown, instead of being 24 years, as in 1879, is 51.6 years.

In the city of Providence, which, from its large population, presents a more uniform average age of decedents from year to year, the average age of male decedents was 28 years in 1879, as against 24.2 years in 1878.

Of the female decedents in Providence city, the average age was 29.5 years in 1879, and 27.9 years in 1878.

The average age of all decedents of both sexes, was 28.8 years in 1879, and 26 years in 1878.

There were three towns in the State that reported an average age of decedents in 1879, which was less than that of Providence city, viz.: Woonsocket, 25.2 years; Jamestown, 24 years, and Lincoln, 23.7 years.

The following Table shows the average age of the decedents, in each of the larger divisions of the State, in each of the last five years, and also in the aggregate of each of four periods of five years each, comprising the twenty years from 1858 to 1877, inclusive:

Table XLIII.

Divisions of the State.	1879.	1878.	1877.	1876.	1875.	1873–1877. 5 years.	1868–1872. 5 years.	1863–1867. 5 years.	1858–1862. 5 years.
Bristol County........	40.87	29.08	32.19	39.53	29.90	33.61	35.12	34.78	35.56
Kent County..........	35.15	33.68	35.78	39.39	35.77	36.20	34.77	35.81	32.15
Newport County......	37.62	39 06	43.96	39.17	45.94	40.68	40.04	33.54	35.01
Providence Co , Towns	32.45	30.98	28.16	31.69	30.19	28.46	25.26	29.16	28.44
Providence City... ...	28.82	26,09	27.74	28.41	28.57	27.19	25.45	28.50	25.78
Washington County...	43.44	42.34	43.68	43.09	37.17	41.14	39.67	30.87	34.21
Whole State	32.29	30.09	30.45	32.37	31.27	30.28	31.66	30.75	29.42

The average age of the total decedents of each of the larger divisions of the State, in 1879, was greater than in 1878, except Newport county, which was less by about one and one-half years.

The difference in Bristol county, about eleven years, is quite unusual. Nearly 41 years, is a greater average than ever before reported from Bristol county, and is about six years greater than the average age during a period of twenty years.

Washington county shows an average age of 43.44 years, which is greater, with one exception, than any previous year. This county has the greatest average age of any section or division of the State.

In the whole State, the average age, 32.29 years, is also greater, with perhaps two exceptions, than in any previous year, and greater by about two and one-quarter years than the average of twenty-one years, from 1858 to 1878, inclusive, which was 30.04 years.

PERCENTAGES OF DECEDENTS AT DIFFERENT AGES.

In Table VII., on pages 10 to 15, inclusive, will be found the number of deaths in 1879, in each town and each county, of each sex, and in each period of life, with the percentage of the whole number of deaths in each division, to the population of the same.

The following Table shows the percentages of decedents in each division of ages in each of the last eight years, and in the aggregate for two periods; one of ten years and seven months, from June 1st, 1852, to December 31st, 1862, inclusive; the other of ten years, from 1863 to 1872, inclusive:

TABLE XLIV.

PERIODS OF LIFE.	1879.	1878.	1877.	1876.	1875.	1874.	1873.	1872.	10 years. 1863–1872.	10 years, 7 months. 1852–1862.
Under 1 year	16.1	16.6	17.4	19.5	20.8	19.9	19.3	22.8	18.0	17.6
1 and under 2...	6.8	8.1	8.1	7.4	6.8	7.8	9.2	8.0	7.8	9.8
2 and under 5	10.1	10.3	9.5	7.0	7.0	9.4	8.1	5.5	7.9	9.6
Total under 5	33.0	35.0	35.0	33.9	34.6	37.1	36.6	36.3	33.7	37.0
5 and under 10..... ..	6.3	6.2	6.2	4.2	4.0	5.7	5.3	2.7	4.6	5.0
10 and under 20..... ..	4.8	6.1	5.4	5.2	5.5	6.0	6.9	6.5	6.2	5.8
20 and under 30..... ..	8.8	8.8	8.9	9.1	9.6	8.7	9.1	9.9	9.7	9.5
30 and under 40	7.4	7.6	7.5	7.7	7.9	6.9	7.8	8.5	8.1	8.7
40 and under 50..... ..	6.5	6.4	6.6	6.9	7.7	6.8	6.5	7.3	7.2	7.5
50 and under 60..... ..	7.1	7.6	7.2	7.5	7.4	7.0	6.4	6.7	7.3	6.7
60 and under 70... ..	10.0	7.9	8.8	9.3	8.6	7.8	7.6	8.2	8.3	6.9
70 and under 80..... ..	9.0	8.8	9.5	9.8	8.4	8.1	8.3	7.7	8.4	7.3
80 and under 90..... ..	5.5	4.8	4.0	5.2	5.0	4.7	4.5	5.4	5.4	4.6
Over 90 and not stated	1.6	0.8	0.9	1.2	1.3	1.2	1.0	0.8	1.1	1.0
Total...............	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

A comparison of the percentages of mortality in the different periods of life, between one year and another, during the last eight years, as presented in the above Table, will show that the proportion of decedents under 5 years of age, during 1879, was less than in any year since 1871, and considerably less than the average of a period of more than twenty-seven years. The lessened percentage is due, in a considerable measure, to a greatly dimished number of cases of cholera infantum throughout the State, and consequently a lessened mortality from that disease.

It may be of interest to see what the changes have been, from year to year, since and including 1875.

PERCENTAGES OF MORTALITY FROM CHOLERA INFANTUM.

	1875.	1876.	1877.	1878.	1879.
Rhode Island.	7.74	6.41	6.08	3.97	3.81

It will thus be seen that the mortality from cholera infantum has diminished more than one-half within the last five years.

During the year 1879, as compared with the year 1878, the difference in percentage of deaths has been chiefly in the divisions of ages, between one and two, between ten and twenty, and between sixty and seventy.

There seems to be something of the law of compensation acting in the production of mortality in the different divisions of the State. This is shown by the lessened percentage of deaths in one town from the usual diseases, while it is increased in another from the presence of an epidemic of fatal type: or, as it is frequently observed, the circumstance of increased prevalence of disease of one kind, and the unusually lessened prevalence of some other, may occur at the same time in the same town or city.

As an instance, while cholera infantum has caused a greatly decreased number of deaths during the last two years, in children under five years of age, diphtheria and scarlatina have taken its place in some locations, and have increased the percentage of deaths in that period of life.

The different circumstances that act as factors in the production of percentage of mortality, in the different towns and in the different periods of life, are so many and so various in character, that it would require many pages to present them and describe the manner in which the results are produced.

To show some of the strong contrasts of death rates, in the different divisions of age, in different sections of the State, the following summary is presented. It will be understood that the percentages are the proportion of deaths in each division of age, to the total deaths in each town or city taken.

		Under 1 year.	Under 5 years.	5 to 20.	20 to 50.	50 & over.
1879.		Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
State of Rhode Island,	Males	8.6	17.4	4.9	10.3	16.1
	Females	7.5	15.6	6.2	12,4	17.1
Total		16.1	33.0	11.1	22.7	33.2
Barrington		0.83	16.7	16.7	16.6	50.0
New Shoreham		16.6	16.6	00.0	00.0	83.4
Woonsocket		27.4	46.3	10.0	18.0	25.7
Charlestown		00.0	00.0	5.9	11.8	82.3
City of Providence		15.6	35.2	13.2	23.7	27.9
Foster		00.0	00.0	00.0	13.0	87.0

The average age of the decedents in each of the above towns, in 1879, was as follows: Barrington, 44 years; New Shoreham, 44.5 years; Woonsocket, 25.15 years; Charlestown, 67.23 years; Providence city, 28.82 years; Foster, 67 years.

It will be seen, as might be expected, that in those towns where the average age was greatest, the number of decedents in the earlier years of life were few or none.

In the town of Barrington, one-half of the decedents were over 50 years of age. In New Shoreham, over 83 per cent. were of the age of 50 years or more, while in Woonsocket about 75 per cent. were under the age of 50 years. In Woonsocket, it will be noticed, that nearly one-half were under 5 years of age, and more than one-quarter under one year.

In Charlestown no deaths of persons under 5 years of age occurred, and only about 6 per cent. of the total number were under 20, and about 12 per cent. under 50 years of age.

In the city of Providence, more than one-third of the whole number of decedents were under 5 years of age, and nearly one-sixth under one year.

In Foster not one death was reported under 20 years of age, and only 13 per cent. under 50 years.

Upon referring to Table XIV., page 48, it will be found that all those towns in which the percentage of mortality under 5 years of age was very small, there was also a low birth rate, and *vice versa* in towns with a large percentage of deaths under 5 years of age.

In the whole State, as compared with the year 1878, the percentages of mortality of persons of the age of five years and over, do not greatly differ. It is somewhat less between the ages of ten and twenty, and considerably increased between the ages of sixty and seventy.

The reason of the changes that occur in the average age of decedents from year to year, in the same town or city, and the difference in the different towns and cities, will be suggested by an examination of Tables XIV. and XLIV., in connection with the foregoing remarks.

COLORED DECEDENTS.

The statistics of the colored population of Rhode Island are always included in the general statistics of the State. But on account of several questions of considerable importance, the statistics of births, marriages and deaths, have been separately considered. This has seemed to be of more consequence in Rhode Island, because the number of this class of the people is larger, proportionally, than in most northern States.

The number of deaths reported in 1879, among the colored population, was 168. The number is 12 more than in 1878, and 8 more than in 1877. They occurred in the different towns as follows:

Providence City		113
Newport City		21
South Kingstown		6
Warwick and East Providence,	4 each	8
Bristol, Pawtucket and North Kingstown,	3 each	9
Cranston, Lincoln and Westerly,	2 each	6
East Greenwich, Little Compton, Portsmouth, Charlestown and Richmond,	1 each	5
Total		168

Sex.—Of the 168 colored decedents, 67 were males and 101 females.

Season.—These 168 deaths were in the different months, as follows:

Months.	Deaths.	Months.	Deaths.	Months.	Deaths.	Months.	Deaths.
January	17	April	17	July	16	October	8
February	18	May	11	August	21	November	7
March	15	June	10	September	12	December	16
1st Quarter	50	2d Quarter	38	3d Quarter	49	4th Quarter	31

First six months, 88; second six months, 80. Total, 168.

Age.—The average age of the colored decedents in Rhode Island, in 1879, was as follows:

	Providence City.	Rest of State.	Whole State.
Colored Males	20.77 years	34.43 years	23.63 years.
Colored Females	21.10 years	38.17 years	27.93 years.

SUMMARY OF COLORED POPULATION.

The number of births, marriages and deaths among the colored population of Rhode Island, in the several divisions of the State, in 1879, is given in the following Table, compared with the colored population in each division, as found by the State Census of 1875, the colored population by the Census of 1880 not having been ascertained when this Table went to press:

TABLE XLV.

COUNTIES.	Colored Population, 1875.	Births, 1879.		Marriages, 1879.		Deaths, 1879.	
		Number.	To population one birth in	Number.	Of population one person married in	Number.	Of population one death in
Bristol County	249	2	124.5	.....	......	3	83.0
Kent County	365	7	52.1	2	91.2	5	71.0
Newport County	1,021	14	73.0	7	73.0	23	44.4
Providence County, Towns	423	20	21.1	2	105.7	11	38.5
Providence City	3,487	104	32.3	44	39.6	113	30.8
Washington County	726	12	60.5	6	60.5	13	56.0.
Whole State	6,271	159	39.6	61	51.4	168	37.3

In 1878, the proportions of the above events in the whole State among the colored population were as follows: One birth in every 36.4; one person married in every 39.2; and one death in every 40.2.

In 1879, as seen above, the proportions were: One birth in every 39.6; one person married in every 51.4; one death in every 37.3.

There was a smaller proportion of births and marriages, and a larger proportion of deaths in 1879.

The difference in the vital statistics between the white and the colored population, in 1879, may be presented as follows:

White	One child born in every 44.7;	one person married in every 59.2;	one death in every 64.3.
Colored	One child born in every 39.6;	one person married in every 51.4;	one death in every 37.3.
White and Colored,	One child born in every 43.6;	one person married in every 57.8;	one death in every 61.9.

It will be seen that the proportions are larger among the colored, in each of the classes of events, than among the whites. The difference in the events of deaths is quite noticeable.

The following summary shows the number of births, marriages and deaths among the colored population of Rhode Island, in each of the last nineteen years, from 1861 to 1879, inclusive:

COLORED POPULATION.

1861	97 births	30 marriages	109 deaths.
1862	96 births	23 marriages	90 deaths.
1863	73 births	68 marriages	104 deaths.
1864	69 births	35 marriages	121 deaths.
1865	87 births	51 marriages	129 deaths.
1866	124 births	65 marriages	123 deaths.
1867	144 births	61 marriages	105 deaths.
1868	147 births	84 marriages	111 deaths.
1869	136 births	70 marriages	133 deaths.
1870	158 births	70 marriages	128 deaths.
1871	146 births	64 marriages	116 deaths.
1872	171 births	76 marriages	184 deaths.
1873	163 births	69 marriages	160 deaths.
1874	170 births	80 marriages	151 deaths.
1875	156 births	76 marriages	169 deaths.
1876	170 births	59 marriages	156 deaths.
1877	168 births	64 marriages	160 deaths.
1878	172 births	80 marriages	156 deaths.
1879	159 births	61 marriages	168 deaths.
Total	2,606 births	1,186 marriages	2,573 deaths.

There was a less number of children born, a smaller number of marriages, and a larger number of deaths, in 1879, among the colored people than in either of the two previous years.

It will be noticed, that in the whole period of nineteen years the excess of births over deaths is only thirty-three.

CAUSES OF DEATH, 1879.

The statistics of the causes of death in Rhode Island, in 1879, will be found in Tables VIII., IX. and X. The whole number of deaths, as previously stated, was 4,472. The number of which the cause of death was reported was 4,218, and the number of which the cause was not stated was 254. The number from unknown causes was 44 more than in 1878.

The following Table shows the number of deaths in 1879, in each larger division of the State, and the number and percentage in each division, of which the cause was unknown:

TABLE XLVI.

1879.	Bristol County.	Kent County.	Newport County, Towns.	Newport City.	Providence County, Towns.	Providence City.	Washington County.	Whole State.
Number of Deaths...........	150	311	95	264	1,377	2,026	249	4,472
Cause not stated..............	9	34	4	25	144	9	29	254
One in.......	16.6	9.2	23.7	10.6	9.5	225.1	8.6	17.6

It has been previously remarked that the returns of the *causes* of deaths are manifestly more unnecessarily incomplete than any other of the vital statistics of the State. That the *cause* of death in one out of every 17 or 18 of the decedents in the State should be returned as unknown, is positive evidence that there is a defect in the Registration law, as well as proof that there is neglect of duty on the part of those who should observe the law as it stands. The remedy is in the enactment of a law for the State such as is provided by municipal ordinance in the city of Providence, that is, the requirement of burial permits, and the pre-requirement of return of death, and *cause* of death when known. There is no reason why there should not be as many deaths in Providence city, from causes unknown, as in other parts of the State, when as will be seen by Table XLVI., the proportion for the whole State, including the city, is one in every 17.6, and the proportion in the city only one in 225; while in all the towns outside the city of Providence, the aggregate of deaths reported with cause unknown, was as one to ten of the whole number of deaths, or a proportion twenty-two hundred per cent. larger.

Table XLVII.

Showing the proportion of Deaths reported with "cause unknown," in each Division of the State, and in the whole State, in each of the last seventeen years, from 1863 to 1879, inclusive.

YEARS.	Bristol County.	Kent County.	Newport County.	Providence County, Towns.	Providence City.	Washington County.	Whole State.
1863, One in	16.5	11.2	25.5	6.9	46.7	24.7	14.7
1864, One in	57.0	12.6	11.6	8.5	45.7	47.6	16.1
1865, One in	64.3	27.4	13.4	8.2	55.0	32.9	16.4
1866, One in	163.0	11.4	22.	9.5	45.0	23.3	17.3
1867, One in	....	13.6	34.5	7.4	64.0	14.3	14.8
1868, One in	33.2	5.0	20.3	5.2	46.2	10.1	10.1
1869, One in	41.2	5.8	52.8	5.3	83.6	16.1	11.3
1870, One in	....	19.3	23.6	11.8	90.2	26.9	23.6
1871, One in	151.0	81.2	7.9	8.4	83.6	9.8	13.0
1872, One in	13.3	5.8	10.0	6.8	72 8	9.8	11.3
1873, One in	....	16.0	25.4	9.8	102.5	27.5	20.3
1874, One in	54.0	15.2	14.0	17.2	73.7	21.2	27.8
1875, One in	55.0	7.4	15.6	13.7	91.2	11.9	20.9
1876, One in	11.5	7.9	18.5	9.9	124.3	22.8	19.3
1877, One in	....	17.7	9.7	11.9	323.0	16.0	23.2
1878, One in	32.1	7.4	9.0	13.7	124.2	21.7	21.1
1879, One in	16.6	9.2	12.4	9.5	225.1	8.6	17.6

The above Table shows very clearly the great variations that occur from year to year in the proportion of deaths reported with cause unknown, to the whole number of deaths in each division named, and in the whole State.

In Bristol county, the proportions have varied more largely than in any other division, running from a full return of the cause of every death in four out of seventeen years, to the large proportion in 1876 of one death in every 11.5 returned with cause unknown. This county is the only large division of the State that has ever, in any year, reported the cause of every death within the county limits.

It will be seen that the proportion of unknown causes of death in 1879, was more than double that of 1878.

In Kent county, the smallest proportion of deaths reported from cause unknown, during seventeen years, was in 1871; that is, one in every 81.2, or about 1.2 per cent. The largest proportion was in 1868; that is, one in every 5, or 20 per cent. The proportion is larger for the last two years than for 1877.

Newport county, including the city of Newport, shows a general average of one death from cause unknown to every 12.4 of the decedents, or about 8 per cent. In the city of Newport, in 1878, the proportion was about 14 per cent.; while in the towns of Newport county it was only about 2.6 per cent. In 1879 there was less disparity of proportion between the city and county towns, but the proportion in the city was in that year more than twice as large.

The towns in Providence county have always shown a large number of deaths returned with cause unknown. The proportions have invariably been large, and therefore have varied less than any other division. The smallest proportion was in 1874; that is, about six per cent.; and the largest in 1868, which was about 20 per cent.

Providence city is a very good example of what may be accomplished by a "burial permit" law, properly enforced. During a period of seventeen years, the largest proportion of deaths returned with cause unknown, was one in every 45.0 in 1866, and the smallest, one in every 323 in 1877.

In Washington county, the proportion of deaths from cause not known was the largest in 1879 of any one of sixteen previous years, that is, one in every 8.6 decedents, or nearly twelve per cent.

The proportion was also larger in the whole State, that is, one in every 17.6 decedents, or about 6 per cent.

PRINCIPAL CAUSES OF DEATH.

The following Table gives the number of deaths in Rhode Island, from each of thirteen principal causes, showing the order in regard to number, in each of the last three years, and also in the aggregate of deaths for twenty-four years and seven months, from June 1st, 1852, to December 31st, 1876:

TABLE XLVIII.

Showing the order in regard to number of Decedents from thirteen principal causes of death.

1879.		1878.		1877.		June 1st, 1852, to Dec. 31st, 1876—24 yrs. 7 mos.	
Whole Number	4,472	Whole Number	4,441	Whole Number	4,450	Whole Number	72,949
Consumption	637	Consumption	676	Consumption	661	Consumption	11,966
Pneumonia and Conges. of Lungs	311	Diphtheria	435	Diphtheria	492	Pneumonia and Conges. of Lungs	4,210
Scarlatina	311	Pneumonia and Conges. of Lungs	317	Cholera Infantum	259	Old Age	3,950
Diphtheria	259	Old Age	222	Pneumonia and Conges. of Lungs	226	Cholera Infantum	3,743
Apoplexy and Paralysis	220	Cholera Infantum	168	Old Age	213	Scarlatina	3,288
Old Age	220	Heart, Diseases of	166	Heart, Diseases of	182	Fevers, Typhoid, &c	2,818
Heart, Diseases of	202	Fevers, Typhoid, &c	150	Apoplexy and Paralysis	181	Heart, Diseases of	2,647
Cholera Infantum	161	Accidents (all kinds)	122	Cancer (all kinds)	135	Apoplexy and Paralysis	2,398
Cancer (all kinds)	125	Cancer (all kinds)	119	Fevers, Typhoid, &c	134	Accidents (all kinds)	2,217
Fevers, Typhoid, &c	123	Convulsions and Fits	112	Accidents (all kinds)	132	Dysentery	1,975
Convulsions, &c	104	Apoplexy and Paralysis	102	Croup	95	Convulsions and Fits	1,559
Accidents	102	Croup	93	Convulsions and Fits	83	Croup	1,485
Croup	96	Scarlatina	86	Scarlatina	62	Diphtheria	1,291

Consumption, the arch destroyer of human life, leads, as in all previous years, in the number of its victims. In 1879 it caused an excess of more than 200 per cent. as many deaths as any other single disease.

Scarlatina, which during the two preceding years took the lowest place in the order of number of deaths, rises to the second place in 1879, in conjunction with Pneumonia.

This disease assumed a highly epidemic form in the city of Providence, and in some sections in the immediate vicinity, during the last four months of the year. More than 80 per cent. of all the deaths in the State from Scarlet Fever occurred in the city.

Diphtheria was second in point of number of victims in 1877 and in 1878, but in 1879 takes fourth place.

Diphtheria, in this Report, as will be seen above, is for the first time introduced in the column of order of largest mortality for the long series of years. It now outnumbers hydrocephalus, which it displaces, by several hundreds, and although only beginning to be reported in 1858, was, at the close of the year 1876, in advance of that disease as a cause of death, in the aggregate, by more than 20 per cent.

Cholera infantum, which had until within the last two years taken a prominent position in the yearly columns, and the fourth place in the long period of twenty-four years, is now, in the column for 1879, eighth in order of rank as a cause of death. The unusual exemption from Cholera infantum, during 1878 and 1879, of nearly every town in the State where it had most largely prevailed, has been commented upon on a previous page.

Pneumonia has been unusually fatal during the last two years, and maintains its old distinctive prominence as a leading destroyer of life.

Apoplexy and paralysis, also, were attended with unusual fatality during 1879, and stand fifth on the list.

Diseases of the Heart have largely increased, though not standing any higher in the order of largest number of decedents, but maintaining a steady prominence as a cause of death.

Cancer, in its various forms, is steadily increasing in prominence, and will probably be added to the column of the long period by another year.

Accidents have decreased, and Croup has varied but little in the number of its decedents for several years.

TABLE XLIX.

Showing the Deaths in Rhode Island, in 1879, from Sixteen Principal Causes.

		Accidents.	Apoplexy and Paralysis.	Brain, Diseases of.	Cancer.	Cholera Infantum.	Consumption.	Croup.	Diarrhœa.	Diphtheria.	Dysentery.	Fevers, Typhoid, &c.	Heart, Diseases of.	Hooping Cough.	Old Age.	Pneumonia and Congestion of Lungs.	Scarlatina.
Whole Number		102	220	157	125	161	637	96	53	259	44	114	202	43	220	311	311
SEX.	Males	74	114	80	39	88	286	58	28	121	20	47	114	17	82	148	164
	Females	28	106	77	86	73	351	38	25	138	24	67	88	26	138	163	147
PAR'AGE.	American	44	146	82	70	71	278	40	22	143	25	63	127	22	152	163	130
	Foreign	58	74	75	55	90	359	56	31	116	19	51	75	21	68	148	181
SEASON.	January	9	19	17	9	...	70	15	2	20	1	7	19	4	40	84	15
	February	5	17	14	7	1	55	13	1	17	...	7	18	3	21	30	15
	March	10	12	21	13	2	68	15	2	20	...	10	16	3	18	38	12
	April	6	27	11	5	1	49	7	2	26	4	5	25	5	18	28	14
	May	7	21	15	15	1	47	5	2	14	...	10	18	5	13	24	14
	June	9	16	8	11	3	36	7	4	23	3	12	10	6	13	12	5
	July	11	19	8	11	47	46	1	13	12	10	10	14	3	13	5	7
	August	8	18	12	12	72	64	1	13	16	15	9	16	4	21	8	14
	September	7	24	6	7	25	45	4	8	21	5	12	10	...	19	15	23
	October	6	14	17	10	9	61	12	...	40	3	15	18	3	15	20	39
	November	13	11	12	13	...	49	10	4	31	3	7	22	4	16	18	65
	December	11	22	16	12	...	47	6	2	19	...	10	16	3	13	29	88

TABLE XLIX.

Showing the Deaths in Rhode Island, in 1879, from Sixteen Principal Causes.

		Accidents.	Apoplexy and Paralysis.	Brain, Diseases of.	Cancer.	Cholera Infantum.	Consumption.	Croup.	Diarrhœa.	Diphtheria.	Dysentery.	Fevers, Typhoid, &c.	Heart, Diseases of.	Hooping Cough.	Old Age.	Pneumonia and Congestion of Lungs.	Scarlatina.
AGES.	Under 5 years......	23	1	70	...	159	22	86	36	172	20	6	4	39	...	102	186
	5 and under 10....	10	2	16	...	2	5	9	...	63	1	13	7	3	...	8	99
	10 " " 15....	7	...	4	...	...	17	1	...	11	...	7	4	...	...	1	16
	15 " " 20....	3	1	...	...	...	62	...	...	7	1	14	4	...	...	...	...
	20 " " 30....	9	6	6	2	...	186	...	...	2	4	26	9	1	...	3	4
	30 " " 40....	15	11	11	12	...	119	..	2	1	2	15	13	...	...	14	2
	40 " " 50....	8	18	7	22	...	81	...	2	1	1	6	25	...	...	27	2
	50 " " 60....	6	27	10	27	...	68	...	4	2	2	3	33	...	...	26	...
	60 " " 70....	8	57	14	36	...	45	...	5	...	6	12	51	...	4	35	1
	70 " " 80....	7	59	14	18	...	24	...	4	...	4	8	36	...	65	38	...
	80 and over........	5	38	4	7	...	5	...	...	...	2	3	16	...	151	38	...
	Not stated.........	1	...	1	1	...	3	...	...	...	1	1	...	..	...	19	...
LOCALITY.	Bristol County.....	2	12	3	9	8	16	3	1	7	8	4	8	...	14	7	3
	Kent County.......	9	9	13	6	16	38	6	3	19	3	13	20	11	19	15	6
	Newport Co., Towns	5	10	4	3	6	10	...	1	2	4	4	4	...	8	4	3
	Newport City......	6	19	11	6	15	35	15	2	18	3	2	12	1	18	11	1
	Prov. Co., Towns...	23	71	50	28	51	197	25	14	95	13	44	38	12	71	103	37
	Providence City....	53	89	75	66	59	243	43	32	106	10	40	111	15	67	156	255
	Washington Co.....	4	10	1	7	6	48	4	...	12	3	7	9	4	25	15	6

COMMENTS.

In commenting upon the various principal causes of death in Rhode Island in 1879, the same order will be followed as presented in the foregoing Table.

DEATHS FROM ACCIDENTS.

The number of deaths resulting from accidents of all kinds in 1879, was 102. This number is 20 less than in 1878, and 30 less than in 1877.

Of these 102 deaths, 13 were from burns and scalds; 22 by drowning; 16 from falls; 5 from poisoning; 10 from railroad accidents, and 36 from various accidents too numerous to specify.

Of the whole number of deaths by accidents, 74 were males, and 28 were females; 44 were of American, and 58 were of foreign parentage.

It will be noticed how much larger the proportion of males is than that of females; that is, 73 per cent. of male decedents to 27 per cent. of female decedents. Of parentage, 57 per cent. was of foreign, and 43 per cent. of American.

The number of deaths in each quarter of the year was as follows:

First Quarter	24	Second Quarter	22
Third Quarter	26	Fourth Quarter	30
Total	102		

In regard to periods of life, the decedents from accidental causes were divided as follows: Under 5 years, 23; 5 and under 10, 10; between 10 and 20, 10; between 20 and 40, 24; between 40 and 60, 14; over 60, 20; and one, age not stated.

Of the whole number of deaths resulting from accidents, 53, or more than one-half, occurred in the city of Providence.

In the towns of Providence county, there were 23 deaths from accidental causes.

In regard to population the proportions are as follows:

	From Accidents.
City of Providence	One in every 2,000 of the population.
Towns of Providence County	One in every 4,000 of the population.

APOPLEXY AND PARALYSIS.

There were 220 deaths from apoplexy and paralysis reported in Rhode Island in 1879, which were 32 more than in 1878, and 39 more than in 1877.

The following Table will give a synopsis of the several relations of these causes for the last fifteen years:

Table L.

Showing the whole number and percentage of the Deaths in the State, from Apoplexy and Paralysis combined; and also the Sex and Parentage of the Decedents from these causes, and the number of the same in each of the Counties, from 1865 to 1879, inclusive.

YEARS.	Whole Number of Deaths.	APOPLEXY AND PARALYSIS.											
				SEX.		PARENTAGE.		DIVISIONS OF THE STATE.					
		Number from Apoplexy and Paralysis.	Per cent.	Males.	Females.	American.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County, Towns.	Providence City.	Washington County.
1865......	3,405	100	2.93	52	48	81	19	9	8	14	23	38	8
1866... ..	2.970	92	3 09	46	46	80	12	8	5	17	24	29	9
1867......	2.889	124	4.29	59	65	101	23	9	9	13	35	49	9
1868......	2.912	111	3.81	56	55	86	25	9	6	19	27	46	4
1869... ..	3.382	117	3.46	55	62	92	25	12	13	18	20	48	6
1870... ..	3.238	130	4.32	68	62	105	25	14	10	10	39	52	5
1871... ..	3.344	156	4.66	73	83	113	43	10	17	15	40	61	13
1872......	4,247	125	2.97	62	63	96	29	17	9	10	27	52	10
1873......	4,403	134	3.04	59	75	109	25	9	8	17	26	57	17
1874......	4,229	156	3.69	84	72	120	36	14	10	16	42	59	15
1875......	4,317	166	3.61	79	87	133	33	7	13	17	46	75	8
1876......	4.116	165	4.01	79	86	130	35	13	11	13	45	68	1
1877	4.450	181	4.07	87	94	123	58	10	10	16	52	74	19
1878	4,441	188	4.23	104	84	145	43	12	16	21	58	66	15
1879......	4.472	220	4.92	114	106	146	74	12	9	29	71	89	10
Total.....	56,815	2,165	3.81	1,059	1.088	1,660	505	165	154	245	575	863	163

Apoplexy and paralysis, as causes of death, have gradually increased during the last eight years, not only in number of decedents, but also in the proportion of the same to the whole number of decedents from all causes. The number and percentage during 1879 were larger than in any preceding year. The increase, as will be seen in the above Table, is not nearly so great in the American as in the foreign parentage. The average annual number of decedents, in the State, from apoplexy and paralysis, for twelve years previous to 1877, of foreign parentage, was 27.5; the average annual number during the last three years, was 58, more than double that of the longer term of years.

TABLE LI.

Showing the ages of Decedents from Apoplexy and Paralysis in each of the last fifteen years.

APOPLEXY AND PARALYSIS.	PERIODS OF LIFE.								
	Under 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 and over.	Not stated.
1865	.....	3	5	6	19	20	28	19	.....
1866	1	1	7	16	9	24	27	7	.....
1867	2	.....	6	6	15	38	40	17	.....
1868	2	3	3	11	16	27	31	16	2
1869	1	1	5	12	20	28	34	15	1
1870	4	1	10	9	12	33	41	20	.....
1871	3	4	7	14	21	46	45	15	1
1872	1	4	5	17	20	26	41	11	.....
1873	2	3	4	14	22	35	37	16	1
1874	1	2	9	9	30	39	40	25	1
1875	6	2	8	19	23	40	45	22	1
1876	4	4	4	13	25	43	49	23	.....
1877	1	2	9	12	24	50	61	22	.....
1878	4	2	7	14	41	40	53	26	1
1879	4	6	11	18	27	57	59	38	.....
Total	36	38	100	190	324	546	620	292	8

It should be stated in connection with the above Table, that no cases of apoplexy were reported under twenty-years of age. Nor are such cases expected under that age. Paralysis in the earlier years of life occasionally occurs from various causes, not apoplectic, and as paralysis and apoplexy are taken together, the distinction between the two in the Table is lost. Apoplexy is eminently a disease of the later years of life. Nearly 83 per cent. of all cases affect persons of 50 years of age and over.

BRAIN, DISEASES OF.

In Table XLIX., under the head of "Diseases of the Brain," are included all those reported as "Cerebral Meningitis," "Cerebritis," "Congestion," "Inflammation," and "Diseases of the Brain."

The number of decedents from these several causes, grouped under the head of "Diseases of the Brain," in 1879, was 157, which was 18 more than in 1878, and the same as in 1877. The proportion to the whole number of deaths from given causes, was 3.72 per cent. Of the 157 decedents, 80 were males, and 77 were females; 82 were of American parentage, and 75 of foreign parentage.

The deaths in the different seasons of the year were as follows:

First Quarter	52	Second Quarter	34
Third Quarter	26	Fourth Quarter	45
Total	157		

In relation to the periods of life, 70 of the deaths were of children under 5 years of age, or more than 44.5 per cent. of the whole.

CANCER.

The number of deaths reported as having been caused by cancer, in 1879, was 125. This number is 6 more than in 1878; 10 less than in 1877, and is nearly 2.96 per cent. of the whole of the known causes of death in 1879.

As in the preceding topic the several varieties are grouped under one head.

In Tables VIII. and IX., pages 16 and 22, they are reported as follows: Cancer, various, 70; of the breast, 10; of stomach, 24; of the uterus, 21.

Of the whole number of decedents (125) 39 were males and 86 were females; 70 were of American, and 55 were of foreign parentage.

The large proportional number of females, nearly 60.0 per cent., the same as in 1878, though not so large as in 1877, when it was 78.52 per cent., is still indicative of the greater liability of the female sex to this dread disease. Cancer of the breast, in females, and cancer of the uterus, constitute nearly 25.0 per cent. of the whole number.

If season has any influence on mortality from cancer, it is from extremes of heat and cold, acting upon an exhausted organism.

In 1879, the deaths from cancer, in the several seasons of the year, were as follows:

First Quarter	29	Second Quarter	31
Third Quarter	30	Fourth Quarter	35
Total	125		

It will be seen that the season had very little influence on mortality from cancer, in 1879.

Cancer is eminently a disease of adult age. In 1879 there were two cases only, reported under 30 years of age, and twelve only, between 30 and 40.

In regard to locality, there was a considerable difference in 1879, especially in proportion to population. Bristol county, with a population of 11,395, had 9 decedents from cancer, or one in every 1,265, while Kent county, with 20,592 persons, had only 6, or one in every 3,432.

CHILD-BIRTH.

Under the head of child-birth as a cause of disease, are included diseases that have some necessary connection therewith, as puerpural convulsions and puerpural fever.

The number reported in 1879, was 43; 26 of which were from the immediate effects of child-birth alone; 8 from puerpural convulsions, and 9 from puerpural fever.

Of the 26 decedents from the immediate effects of child-birth, 12 were of American, and 14 were of foreign parentage; of the 8 from puerpural convulsions, 4 were of American, and 4 of foreign parentage; of the 9 from puerpural fever, 5 were of American, and 4 of foreign parentage.

Of the whole number, 21 were of American, and 22 of foreign parentage.

In the different seasons of the year they occurred as follows:

First Quarter	11	Second Quarter	15
Third Quarter	10	Fourth Quarter	17

Of the decedents, 3 were under 20 years of age, 21 between 20 and 30, 14 between 30 and 40, and the remaining 5 over 40 years of age.

CHOLERA INFANTUM.

There were reported in Rhode Island, in 1879, 161 deaths from cholera infantum. This number is 7 less than in 1878, and 98 less than in 1877. It is also less, notwithstanding the increase of population, than in any year since 1869.

Deaths from cholera infantum have gradually decreased in number and percentage for several years.

Dysentery and diarrhœa also, have prevailed less extensively during the last two or three years.

The percentage of deaths from cholera infantum, in 1879, was 3.82, as against 6.08, in 1877.

Of the 161 decedents, 88 were males and 73 females; 71 were of American, and 90 of foreign parentage; 133 were under the age of one year, 21 were between 1 and 2 years of age, and 5 were between 2 and 5.

In regard to season, one death was reported in February, 2 in March, one in April, one in May, 3 in June, 144, or about 89.4 per cent., in the months of July, August and September, and 9 during the rest of the year.

The deaths from cholera infantum were more equally distributed, in 1879, than in previous years, Washington county showing the greatest exemption, that is, one decedent to every 3,751 of the population. The proportion is larger in Washington county than in 1878.

The following Table shows the whole number of reported deaths from cholera infantum; the sex and parentage of the decedents, in each of the larger divisions of the State, in each of the last fifteen years:

TABLE LII.

YEARS.	CHOLERA INFANTUM.										
	Number of Deaths.	SEX.		PARENTAGE.		DIVISIONS OF THE STATE.					
		Males.	Females.	American.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County, Towns.	Providence City.	Washington County.
1865	145	63	82	61	84	17	7	14	48	50	9
1866	110	67	43	50	60	1	7	8	39	47	8
1867	117	64	53	62	55	4	3	7	45	49	9
1868	154	85	69	66	88	13	4	12	44	70	11
1869	151	81	70	79	72	6	15	6	48	65	11
1870	213	106	107	95	118	15	15	13	69	93	8
1871	172	85	87	82	90	14	12	12	59	62	13
1872	391	195	196	167	224	16	16	21	157	151	30
1873	285	148	137	165	120	17	14	16	120	99	19
1874	265	140	125	115	150	4	12	5	84	134	26
1875	318	156	162	155	163	20	16	20	108	136	18
1876	250	131	119	105	145	5	12	29	68	124	12
1877	259	139	120	96	163	12	13	9	96	122	7
1878	168	96	72	73	95	7	14	7	64	71	5
1879	161	88	73	71	90	8	16	21	51	59	6
Total, 15 years	3,159	1,644	1,515	1,442	1,717	159	176	200	1,100	1,332	192

During the last fifteen years there have been reported in Rhode Island, 3,159 decedents from cholera infantum, of which 1,644 were males, and 1,515 were females; or 108.5 males to each 100 females; or 52.3 males and 47.7 females in each 100 decedents.

Of the whole number, 1,442 were of American, and 1,717 were of foreign parentage; or 45.64 per cent. American, and 54.36 per cent. foreign parentage; or 119.21 decedents of foreign to each 100 of American parentage.

CONSUMPTION.

There were reported in Rhode Island, in 1879, 637 decedents from consumption. This number is smaller by 39 than in 1878, and smaller than during any one of the four previous years.

The number reported in 1878, 676, was the largest ever reported in the State, although the proportion to the whole number of decedents from all named causes, that is, 15.98 per cent., was smaller than the average of nineteen years, inclusive of 1878, which was 16.96 per cent.

The proportion of deaths from consumption in 1879, in relation to all known causes of death, was 15.10 per cent. This is smaller, as will be noticed, by nearly two per cent., than the average of the previous nineteen years.

Of the 637 decedents from consumption, the sex and parentage were as follows: In regard to sex, 286 were males, and 351 were females; the proportion standing 44.88 males, and 55.12 females in each 100; or 122.7 females to each 100 males.

In regard to parentage, 278 were of American, and 359 of foreign parentage; the proportions, 43.64 American, and 56.36 foreign, in each 100; or 129.14 foreign to each 100 of American parentage.

In regard to season, the largest number of deaths occurred in the first quarterly division of the year, and the smallest number in the second, as will be seen by the following summary:

First Quarter	193	Second Quarter	132
Third Quarter	155	Fourth Quarter	157

The largest number in any one month was 70, in January; the next largest, 68, in the month of March. In a series of years, the month of May stands first in the order of greatest mortality from consumption.

In May, 1879, there was the unusually small number of 47, and in June only 36, the smallest mortality from consumption of any month in the year.

Consumption is confined to no period of life, but the greatest mortality is found in the most active period of adult age; that is, from 20 to 40.

For instance, in 1879, of the 637 decedents from consumption, 186, or about 29.3 per cent., were between 20 and 30 years of age, and 119, or 18.7 per cent., between 30 and 40, making 48 per cent., or nearly half the whole number of decedents. This proportion is less than that of 1878, which was about 53.0 per cent., or more than half.

The relation of mortality from consumption to age, may be seen very readily in the following synopsis:

Age in periods of years.	No. Decedents.
Under ten	27
Between ten and twenty	79
Between twenty and thirty	186
Between thirty and forty	119
Between forty and fifty	81
Between fifty and sixty	68
Between sixty and seventy	45
Seventy and over	32
Total	637

The distribution of mortality from consumption, in the different sections of the State, is very unequal, not only in the percentage to the whole number of deaths in each section, but also in proportion to the population.

The largest percentage of mortality from consumption, to total given causes of death, in 1879, was in Washington county; that is, 21.83 per cent.; the smallest, in Newport county towns, about eleven per cent.

The subject of proportions will be taken up again, in remarks on Table LIII.

The following Table shows the total deaths from all reported *known causes*, with the number and percentage of deaths from consumption, in each of the larger divisions of the State, and in the whole State, in each of the last sixteen years, and in the aggregate for a period of twenty years, from 1860 to 1879, inclusive:

TABLE LIII.—CONSUMPTION.—*Number and Percentage.*

COUNTIES.	1864.	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	Total 20 years. 1860-1879.
BRISTOL COUNTY.																	
Total Deaths.............	168	190	162	144	129	165	146	150	184	173	159	162	148	201	187	141	3,144
Consumption............	20	20	31	18	21	26	26	16	23	16	18	21	19	27	23	16	423
Percentage..............	11.90	10.52	19.13	12.50	16.28	15.76	17.81	10.67	12.50	9.24	11.32	12.97	12.83	13.43	12.30	11.35	13.45
KENT COUNTY.																	
Total Deaths.............	255	238	198	214	168	265	238	281	248	241	252	263	209	251	249	277	4,761
Consumption............	46	41	41	56	38	50	46	63	33	42	32	43	28	42	41	38	870
Percentage..............	18.04	17.22	20.70	26.17	22.62	18.86	19.33	22.42	13.30	17.43	12.69	16.35	13.39	16.73	16.47	13.72	18.28
NEWPORT COUNTY.																	
Total Deaths.............	372	336	342	302	289	259	271	214	262	366	221	277	280	243	265	330	6,017
Consumption............	48	51	52	47	43	40	37	23	29	44	26	41	45	33	31	45	857
Percentage..............	12.90	15.15	15.18	15.56	14.88	15.44	13.66	10.75	11.06	12.02	11.77	14.80	16.07	13.58	11.69	13.64	14.24
PROVIDENCE CO., TOWNS.																	
Total Deaths.............	870	990	883	902	779	912	964	989	1,331	1,389	1,217	1,230	1,110	1,391	1,308	1,233	20,385
Consumption......... ...	146	190	171	210	158	180	172	195	221	197	139	201	211	222	229	197	3,661
Percentage..............	16.78	19.19	19.36	23.28	20.29	19.74	17.84	19.72	16.73	14.18	11.42	16.34	19.01	15.96	17.51	15.98	17.95

TABLE LIII.—CONSUMPTION.—*Number and Percentage.—Continued.*

COUNTIES.	1864.	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	Total 20 years. 1860-1879.
PROVIDENCE CITY.																	
Total Deaths	1,253	1,189	1,013	945	1,086	1,240	1,249	1,239	1,581	1,725	1,965	1,894	1,850	1,932	1,973	2,017	28,194
Consumption	197	191	200	189	214	210	238	195	242	230	270	297	284	294	305	293	4,649
Percentage	15.72	16.06	19.74	20.00	19.71	16.95	19.06	15.74	15.31	13.33	13.74	15.68	15.35	15.22	15.46	14.53	16.49
WASHINGTON COUNTY.																	
Total Deaths	233	255	201	187	173	241	233	222	265	292	263	284	306	240	249	220	4,513
Consumption	41	54	28	39	38	43	56	35	49	51	44	47	68	43	47	48	861
Percentage	17.51	21.16	13.93	20.86	21.96	17.84	24.04	15.76	18.49	17.47	16.73	16.55	22.22	17.91	18.88	21.82	19.08
WHOLE STATE.																	
Total Deaths	3,151	3,198	2,799	2,694	2,624	3,082	3,101	3,095	3,871	4,186	4,077	4,110	3,903	4,258	4,231	4,218	67,214
Consumption	498	547	523	559	512	549	575	527	597	580	529	650	655	661	676	637	11,321
Percentage	15.81	16.95	18.68	20.74	19.51	17.81	18.52	17.03	15.41	13.86	12.96	15.79	16.78	15.52	15.98	15.10	16.84

Persons interested in the statistics of diseases, and desiring to study consumption, will find Table LIII. very satisfactory in the facts it discloses in regard to number and locality of decedents, and relative proportions.

By arranging in parallel columns the items of single years, and combining together a long series of years, the results of single years can be readily compared, and the averages of a long period conclusively ascertained.

The variations of one year with another in the same locality, and of different localities in the same year, and the averages for a considerable number of years, are shown in such manner as to allow very definite conclusions.

In Bristol county, the annual percentages of mortality from consumption, to total deaths in the same county, have varied from 9.24 per cent. in 1873, to 17.81 per cent. in 1870.

The percentage of 1879 is 11.35, which is less than any one of the previous four years. The average of twenty years is 13.45 per cent., and is the smallest of any county.

Kent county shows a variation of from 12.69 per cent. in 1874, to 26.17 per cent. in 1867. The high percentage of mortality in that county in 1867, was not from the small number of deaths from other causes, but from the remarkably increased number of consumptives. In 1879, the percentage was 13.72, scarcely above half that of 1867. The mean average percentage of the long period is 18.28, the largest, with one exception, of any county in the State.

Following close upon the low average percentage of the twenty year period of Bristol county, we find Newport county with a mean of 14.24 per cent., or about four-fifths of one per cent. larger.

The variations in the annual percentages of Newport county, as seen in the foregoing Table, are from 10.75 per cent. in 1871, to 16.07 per cent. in 1876. The percentage of 1879 is 13.64.

Providence county towns show variations from 11.42 per cent. in 1874, to 23.28 per cent. in 1867, as may be seen in the Table. In 1862, there was in the towns of Providence county the high rate of 24.78 per cent., the largest on record for that county. In the same year the percentage of the whole State was 21.22, also the largest on record.

The percentage of consumption to total given causes of mortality in Providence county towns, in 1879, was 15.98; for twenty years, 1860 to 1879, inclusive, the average was 17.95 per cent.; or about two per cent. higher than the rate of 1879.

In Providence city, the proportion of deaths from consumption to total deaths, was 14.53 per cent. The rate is not only less in the city than in the country towns of Providence county, in 1879, but also in nearly every year of registration.

It may be regarded as a rule, that all the diseases of the *respiratory* organs have a larger percentage of mortality in the country towns of Providence county than in the city. But in the city there is usually a much larger percentage of deaths from other diseases, especially of the brain and nervous system, the heart, digestive organs, and alimentary canal. The proportion of deaths from all diseases, in 1879, to population by Census of 1880, was 14.8 in each one thousand in Providence county towns; and 19.3 in each thousand in Providence city.

Washington county has almost invariably shown a large percentage of mortality from consumption. The average percentage for a term of years, is larger than any other section of the State. The smallest percentage during the last sixteen years was recorded in 1866, that is, 13.93; the largest in 1870, which was 24.04 per cent.

The average mortality of twenty years is 19.08 per cent.; and of 1879, 21.82 per cent.

The smaller proportional number of deaths from other diseases, makes the percentage of deaths from consumption larger. For instance, in 1879, the proportion of deaths from all diseases to population, in Washington county, was 11.1 in each one thousand; in Providence county, 17.2 in each thousand.

It will be understood, that many circumstances may vary the percentage of deaths from consumption in any section, that is, the percentage of the whole number of deaths. An unusual mortality in any year from the prevalence of epidemics or endemics, would lessen the percentage from consumption in that year, even if the number of decedents from consumption was the same, or even somewhat larger than in ordinary years.

The extremes of proportion in the whole State during the last sixteen years, as found in Table LIII., are 12.96 per cent. in 1874, and 20.74 per cent. in 1867. The percentage of 1879 is 15.10, and the average of twenty years 16.84.

In the Report of 1878 the whole number of deaths from consumption, in the last nineteen years, including 1878, in the different divisions of the State was compared with the number of inhabitants of the same divisions for the purpose of ascertaining the percentage of deaths from that cause in proportion to the population. If the population of all sections increased with equal ratio, such comparison would show the relative liability of the inhabitants of each section to the disease, with quite full accuracy. But as it is, an average of the semi-decennial enumerations may be taken, which will afford such an approximation to exactness as to make the comparisons sufficiently correct.

The following is the synopsis then presented:

CONSUMPTION—PROPORTION OF DEATHS TO POPULATION.

1860–1878.

NINETEEN YEARS, INCLUSIVE.

	Yearly average. No. of deaths.	Yearly average to population one in every	
Bristol County	21.4	442	or 2.26 in each 1,000
Kent County	43.8	403	or 2.48 in each 1,000
Newport County	42.7	492	or 2.03 in each 1 000
Providence County, Towns	182.3	403	or 2.48 in each 1,000
Providence City	229.0	349	or 2.87 in each 1,000
Washington County	42.0	452	or 2.21 in each 1,000

It may be of interest also to compare the proportions of 1879 with those of 1878, as well as with the long period of nineteen years:

CONSUMPTION—PROPORTION OF DEATHS TO POPULATION.

1878.

	Total Deaths.	To population one in every	
Bristol County	23	482	or 2.08 in each 1,000
Kent County	41	496	or 2.02 in each 1,000
Newport County	31	706	or 1.41 in each 1,000
Providence County, Towns	229	370	or 2.72 in each 1,000
Providence City	305	330	or 3.03 in each 1,000
Washington County	47	427	or 2.34 in each 1,000

1879.

	Total Deaths.	To population one in every	
Bristol County	16	712	or 1.40 in each 1,000
Kent County	38	542	or 1.84 in each 1,000
Newport County	45	538	or 1.86 in each 1,000
Providence County, Towns	197	473	or 2.11 in each 1,000
Providence City	293	358	or 2.80 in each 1,000
Washington County	48	470	or 2.13 in each 1,000

The proportions of 1879 are based on the Census of 1880.

It will be noticed that the mortality from consumption in 1879, in proportion to the population, was less in every division of the State than the average of nineteen years, and that the proportion was also less in 1879 in every division, except Newport county, than in 1878.

It should be remembered, however, that the larger population upon which the calculations of 1879 are based would lessen the proportions; and, as in the case of Washington county, the ratio would be but little changed.

If we take the records of consumption for nineteen years as an indication of the liability of the inhabitants of the different sections to contract that formidable disease, then Newport county will stand first in the order of exemption.

Washington county follows Newport in the order of least liability, and the other divisions appear as follows, in order: Bristol county; Providence county towns, and Kent county having an equal liability; and Providence city; the last showing the greatest liability.

CROUP AND DIPHTHERIA.

Contrasts have been made between croup and diphtheria since 1858 for various purposes, as will be seen in the following pages. Although they have some pathological conditions in common, they are not generally believed to be identical.

The following Table shows the number of deaths and the sex of the decedents in Rhode Island, from croup and from diphtheria, in each of the seven years, from 1858 to 1864, inclusive:

TABLE LIV.

YEARS.	CROUP.			DIPHTHERIA.		
	Males.	Females.	Total.	Males.	Females.	Total.
1858	35	34	69	1	5	6
1859	37	21	58	10	10	20
1860	27	30	57	24	43	67
1861	32	26	58	66	74	140
1862	34	39	73	31	50	81
1863	51	46	97	73	82	155
1864	48	57	105	67	93	160
Seven Years	264	253	517	272	357	629

Table LIV. has been retained in these reports to show the progress of diphtheria during the first seven years of its reported existence in the State and its numerical relations to croup during that time, and also because the mode of tabulation of comparisons since that period, has included the parentage of decedents from these causes, and consequently a new form of Table.

The following Table gives the number, the sex and the *parentage*. of the decedents from croup and from diphtheria, in Rhode Island, in each of the last fifteen years, from 1865 to 1879, inclusive:

TABLE LV.

YEARS.	CROUP.					DIPHTHERIA.				
	Number of Deaths.	SEX.		PARENTAGE.		Number of Deaths.	SEX.		PARENTAGE.	
		Males.	Females.	American.	Foreign.		Males.	Females.	American.	Foreign.
1865	94	44	50	32	62	82	41	41	62	20
1866	53	26	27	22	31	64	26	38	36	28
1867	50	25	25	21	29	31	14	17	19	12
1868	30	13	17	14	16	20	8	12	11	9
1869	41	19	22	14	27	33	18	15	19	14
1870	53	29	24	25	28	33	17	16	18	15
1871	72	39	33	31	41	57	23	34	29	28
1872	66	37	29	17	49	48	24	24	35	13
1873	68	30	38	35	33	45	24	21	35	10
1874	65	39	26	38	27	59	30	29	37	22
1875	96	53	43	43	53	33	17	16	18	15
1876	102	50	52	42	60	159	77	82	69	90
1877	95	48	47	34	61	492	239	253	233	259
1878	93	45	48	43	50	435	224	211	201	234
1879	96	58	38	40	56	259	121	138	143	116
Total, 15 Years	1,074	555	519	451	623	1,850	903	947	965	885

By the two preceding Tables we may note the progress of diphtheria for twenty-two years. It had not assumed prominent importance as a cause of death until in 1861, when 140 deaths were reported as having been caused by it. It prevailed to a considerable extent in 1863 and 1864, and then subsided to a point in numbers considerably below that of croup, in the aggregate and in the average, for eleven years, or until 1876, when it again assumed large proportions. During 1877 and 1878 it prevailed to an alarming extent, and second only to consumption was the most prominent and formidable cause of death in the State.

During the last three years the deaths from croup number 284; the deaths from diphtheria 1,176, an excess of more than 400 per cent.

SEX AND PARENTAGE.

Of the whole number of decedents from croup in twenty-two years, 1858 to 1879, inclusive, 819 were males and 736 were females, or 111.3 males to each 100 females.

For the same period of time, of the whole number of decedents from diphtheria, 1,175 were males and 1,304 were females; or 89.1 males to each 100 females.

It will be seen that there is a very considerable difference in the proportion of the sexes of the decedents from the two diseases.

Why there should be such a preponderance of male decedents in croup, and so small a proportion of male decedents in diphtheria, may be a question of difficult solution.

It is possible that from the generally more vigorous physical stamina of males, croup fastens upon the patient with a more unrelaxing and fatal grasp, while the same greater vital power of the males enables them to endure longer and more successfully the prostrating effects of the diphtheritic poison.

During the year 1879, the decedents from croup were in large proprotion of foreign parentage; that is, 140 of foreign to each 100 of American parentage.

On the other hand, the decedents from diphtheria were in large proportion of American parentage; that is, 123.3 of American to each 100 of foreign parentage.

The following summary will show in a concise form the percentage of deaths in the sexes from croup and diphtheria, and also the parentage of the same decedents in the fourteen years preceding 1879:

IN EACH 100 DECEDENTS.

1865–1878.

	Males.	Females.	Total.	American Parentage.	Foreign Parentage.	
Croup	50.82	49.18	100.00	42.02	57.98	100.00
Diphtheria	49.15	50.85	100.00	51.66	48.34	100.00

In regard to the parentage of the decedents during the fourteen years, it will be seen that although the foreign population in the State is considerably less than the American, the decedents from croup are in large excess of foreign parentage, and the decedents from diphtheria are in excess of American parentage.

When, however, we consider the numerical proportions of the two classes of population, it will be found that there is a slight excess of *percentage* of mortality from diphtheria of foreign parentage.

SEASON AND MORTALITY.

The influence of season in regard to mortality from croup and diphtheria, may be seen in the following Table, where these diseases may also be compared with scarlatina, to which they bear resemblance in some respects. The Table will give the whole number of deaths, during the periods named, and the average monthly and quarterly percentages of deaths, from each disease:

TABLE LVI.

MONTHS.	CROUP. 1853–1879.		DIPHTHERIA. 1858–1879.		SCARLATINA. 1853–1879.	
	Number of Deaths.	Per cent.	Number of Deaths.	Per cent.	Number of Deaths.	Per cent.
January	228	12.38	221	9.13	416	11.08
February	199	10.83	160	6.62	398	10.61
March	160	8.67	183	7.57	367	9.78
First Quarter	587	31.88	564	23.32	1,181	31.47
April	130	7.06	134	5.54	306	8.18
May	94	5.11	154	6.36	331	8.79
June	90	4.89	157	6.49	315	8.39
Second Quarter	314	17.06	445	18.39	952	25.36
July	58	3.15	118	4.88	215	5.72
August	54	2.92	145	5.99	173	4.70
September	116	6.31	216	8.93	179	4.70
Third Quarter	228	12.38	479	19.80	567	15.12
October	198	10.76	324	13.39	250	6.66
November	242	13.15	322	13.32	337	8.98
December	272	14.77	285	11.78	466	12.41
Fourth Quarter	712	38.68	931	38.49	1,053	28.05
Totals	1,841	100.00	2,419	100.00	3,753	100.00

The facts disclosed in Table LVI., in relation to the influence of season on mortality from croup, diphtheria and scarlatina, afford a wide field for study to those interested in such statistics. It will be seen that the three diseases may be studied in their comparative, as well as absolute relation to season, that is, in comparison, each with the others.

It will be noticed that the statistics of diphtheria are for twenty-two years, commencing with 1858, as no reports of deaths from that disease had been returned previous to that year; and that the statistics of croup and scarlatina are for the period of twenty-seven years.

An examination of the Table will show that the average monthly percentages of mortality from croup, for a series of twenty-seven years, diminish in regular order from the month of January to the month of August, in which month we find the minimum of mortality, and then as regularly increases from month to month throughout the rest of the year, the largest average percentage being found in the months of November and December.

In diphtheria, there is a gradual diminution from the beginning of the year to July, but in a more irregular mode of gradation. From and including August, the percentages of mortality rapidly increases to the months of October and November, in which the percentage is about equal. There is then a change, the diminution commencing in December and ending in the July following.

In scarlatina, the percentage of mortality diminishes, almost as regularly as in croup, from the month of January to August and September, which months have an equal minimum percentage. From September there is a regular increase to December, in which month the maximum percentage is reached.

It will be observed that diphtheria reaches its minimum percentage of mortality a month earlier than croup, and from one to two months earlier than scarlatina. Its maximum is also reached a month or more earlier than either of the others.

It has been before remarked, that aside from the similarity of the three diseases, in the diminution of mortality and of prevalence also, as the months of the warmer season advance, there are decided differences in the relative percentages of the several quarterly and other divisions of the year.

The following summary will present very concisely the differences in the percentages of mortality from the different diseases, in each of the quarterly periods, and also in each of the periods of four and six months. It will be kept in mind that the percentages of diphtheria are for a period of five years less than either of the others, but it is hardly probable that a more extended period would materially change the results as to its own percentage of mortality in the different seasons:

PERCENTAGES OF MORTALITY.

	First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.	First 4 Months.	Second 4 Months.	Third 4 Months.	First 6 Months.	Second 6 Months.
Croup	31.88	17.06	12.38	38.68	38.94	16.10	44.96	18.94	51.06
Diphtheria	23.32	18.39	19.80	38.49	28.88	23.73	47.39	41.71	58.29
Scarlatina	31.47	25.36	15.12	28.05	39.62	27.55	32.83	56.83	43.17

Whatever influence there may be in season, in regard to mortality from the diseases under consideration, and it is very evident that such influence does exist, the contrasts presented above will show very clearly how the three diseases are affected by it.

It will be noticed that in croup and diphtheria, the largest percentages of mortality were in the last quarter, the last third and last half of the year. But in scarlatina it will be seen it is quite the reverse, the percentages being very considerably larger in the first quarter, first third and first half of the year.

It may be of interest to some persons to see the contrasts, in a summarized form, of the proportions of deaths from diphtheria and scarlatina to all known causes of death, in each of the different divisions of the State, for each of the years 1877 to 1879, inclusive:

	DIPHTHERIA.			SCARLATINA.		
	1877.	1878.	1879.	1877.	1878.	1879.
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
Bristol County	5.97	11.23	4.96	6.97	1.60	2.13
Kent County	17.53	11.64	6.85	1.59	2.01	2.17
Newport County, Towns	—	4.05	2.20	—	4.05	3.30
Newport City	1.19	10.47	7.54	1.78	—	.42
Providence Co., Towns	8.77	8.11	7.71	1.51	1.07	3.00
Providence City	15.27	12.42	5.25	.62	2.89	12.64
Washington County	7.08	4.42	5.45	3.33	1.61	2.73
Whole State	11.56	10.28	6.14	1.46	2.03	7.37

The changes which have taken place within the last three years in the prevalence of diphtheria and scarlatina, in the different divisions of the State, are very clearly shown in the above synopsis. In 1877 no deaths from either of these diseases were reported from Newport county towns, and in Newport city, two only from diphtheria, and three from scarlatina.

In Newport city, in 1878, the mortality from diphtheria rose to more than a tenth of the whole number of decedents, and subsided in 1879 to about seven and one-half per cent.

In Providence city, as will be seen, the proportion of deaths from diphtheria in 1877 was more than a seventh of the whole number, diminishing in 1878 to less than one-eighth, and in 1879 to about one-twentieth.

Diphtheria prevailed very largely in Kent county in 1877, causing a mortality of more than one-sixth of the whole number of deaths, subsiding to about one-ninth in 1878, and about one-fifteenth in 1879.

In Providence county towns and Washington county, the proportions of deaths from diphtheria have not varied very much during the last three years.

In Bristol county there was a large mortality from diphtheria in 1878, more than one-ninth of the whole, and about twice as large as in the preceding, or the following year.

Scarlatina prevailed quite extensively, and was largely fatal, in Bristol county in 1877, subsiding to quite small proportions in 1878 and 1879. It seemed to pass into the towns of Newport county, where it was quite prevalent in 1878, and from thence to Providence city, where, in September of 1879, it assumed the proportions of a formidable epidemic, and continued such through the year. The mortality from scarlatina in the city of Providence, in 1879, was more than one-eighth of the whole.

It has been only slightly prevalent during the last three years in Kent county, in Newport city, and in Providence county towns. In the last named, it was confined mostly during 1879 to the towns lying immediately adjacent to Providence city.

In Washington county it has had moderate prevalence during the last three years.

The following Table will show the statistics of scarlatina for each of the last twenty-five years, from 1855 to 1879, inclusive; the whole number of deaths in the State; the number and percentage, and sex of the decedents from scarlatina, and the number from scarlatina in each division of the State. It will also show, from 1865 to 1879, inclusive, the parentage of the decedents from scarlatina:

Table LVII.

YEARS.	Whole Number of Deaths.	SCARLATINA.											
				SEX.		PARENTAGE.		DIVISIONS OF THE STATE.					
		Scarlatina	Per cent.	Males.	Females.	American.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County, Towns.	Providence City.	Washington County.
1855......	1,846	71	3.8	41	30	....	...	22	....	1	6	42	...
1856......	2,042	208	10.2	109	99	....	....	3	1	3	57	144	....
1857......	2,325	147	6.3	69	78	....	....	....	20	47	47	32	1
1858......	2,616	234	8.9	118	116	...	...	5	11	75	61	72	10
1859......	2,270	71	3.1	34	37	....	....	5	2	4	14	45	1
1860	2,686	64	2.4	31	33	....	....	4	3	7	17	17	16
1861......	2,927	57	1.9	24	33	....	....	2	2	7	9	28	9
1862......	2,591	47	1.8	25	22	....	....	3	4	3	19	14	4
1863......	3,207	91	2.8	40	51	....	....	1	....	23	24	33	10
1864......	3,360	266	8.0	120	146	...	....	1	19	19	80	141	6
1865	3,405	255	7.5	130	125	134	121	33	17	3	86	108	8
1866... ..	2,970	28	0.9	15	13	12	16	5	...	8	12	3	...
1867......	2,889	14	0.5	6	8	10	4	1	....	1	2	10	....
1868......	2,912	93	3.2	47	46	32	61	2	3	3	34	50	1
1869... ..	3,382	286	8.4	126	160	128	158	17	23	12	72	138	24
1870... ..	3,238	75	2.3	37	38	28	47	1	6	3	22	35	8
1871......	3,344	66	1.9	41	25	31	35	1	3	1	37	21	13
1872......	4,247	53	1.2	22	31	22	31	....	1	4	27	19	2
1873......	4,403	287	6.5	124	163	163	124	4	2	42	80	132	27
1874......	4,229	462	10.9	231	231	176	286	27	17	1	133	268	16
1875......	4,317	185	4.3	85	100	121	64	8	30	3	35	94	15
1876......	4,116	80	1.9	34	46	42	38	3	2	7	21	55	12
1877	4,450	62	1.4	26	36	29	33	14	4	3	21	12	8
1878	4,441	86	1.9	41	45	35	51	3	5	3	14	57	4
1879......	4,472	311	7.4	164	147	130	181	3	6	4	37	255	6
Totals, 24 Years .	82,685	3,599	4.3	1,740	1,859	1,093	1,250	168	181	287	957	1,805	201

DISEASES OF THE HEART.

During the year 1879, there were reported in Rhode Island 202 deaths from diseases of the heart. This number is 36 larger than that of 1878, and 20 larger than in 1877. It is the largest number ever reported with one exception, and is 4.78 per cent. of all deaths from given causes.

The following Table shows, for each of the last fifteen years, 1865 to 1879, inclusive, the whole number of deaths in the State; the number and percentage, and the sex and parentage of the decedents from diseases of the heart, and the number of the same in each division of the State:

TABLE LVIII.

YEARS.	Whole Number of Deaths.	DISEASES OF THE HEART.											
				SEX.		PARENTAGE.		DIVISIONS OF THE STATE.					
		Diseases of the Heart.	Per cent.	Males.	Females.	American.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County, Towns.	Providence City.	Washington County.
1865......	3,405	98	2.88	51	47	65	33	6	5	8	27	47	5
1866.....	2,970	115	3.87	58	57	90	25	7	8	10	41	40	9
1867......	2,889	114	3.94	67	47	81	33	4	9	7	37	49	8
1868.	2,912	116	3.96	58	58	79	37	5	8	12	35	52	4
1869......	3,382	128	3.78	75	53	79	49	2	13	11	36	62	4
1870	3,238	117	3.61	77	40	77	40	4	10	8	35	59	1
1871......	3,344	144	4.30	78	66	91	53	4	7	8	42	77	6
1872	4,247	189	4.45	104	85	119	70	5	9	10	59	93	13
1873......	4,403	189	4.29	83	106	122	67	4	11	14	48	101	11
1874	4,229	214	5.06	109	105	150	64	6	6	28	50	106	18
1875... ..	4,317	186	4.31	84	102	113	73	2	13	22	49	88	12
1876......	4,116	166	4.03	86	80	109	57	9	11	10	38	86	12
1877......	4,450	182	4.09	94	88	110	72	3	7	9	57	93	13
1878......	4,441	166	3.73	88	78	109	57	5	11	15	38	83	14
1879......	4,472	202	4.78	114	88	127	75	8	20	16	38	111	9
Totals, 15 years..	56,815	2,326	4.09	1,226	1,100	1,521	805	74	148	178	630	1,147	139

The difference in the percentage of males and females, and also of American and foreign parentage, of the decedents from diseases of the heart is quite noteworthy.

Of the 2,326 persons deceased from diseases of the heart, in the last fifteen years, 1,226 were males, and 1,100 were females; or 52.71 males and 47.29 females in each 100; or 111.5 males to each 100 females.

The greatest difference, however, is found in the parentage.

Of the 2,326 decedents from this cause, 1,521 were of American, and 805 were of foreign parentage; or 65.4 of American and 34.6 of foreign parentage in each 100; or 189 decedents of American parentage to each 100 of foreign.

The following Table shows the number of decedents from diseases of the heart, in each divisional period of life, in each of the last fifteen years:

TABLE LIX.

YEARS.	Under 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 and over.	Not stated.
1865	14	4	6	7	22	17	19	9	.....
1866	18	8	14	17	10	23	21	4	.....
1867	11	11	10	13	22	16	27	4	.....
1868	15	5	13	11	14	28	25	5	.....
1869	21	4	14	18	20	22	21	7	1
1870	19	6	11	13	20	21	23	3	1
1871	9	12	10	19	23	36	28	6	1
1872	27	12	22	19	31	36	29	13	.....
1873	19	11	28	18	25	35	42	9	2
1874	20	16	26	21	27	50	40	12	2
1875	14	16	25	20	32	29	41	9	.....
1876	14	10	15	19	20	38	39	10	1
1877	15	11	20	18	27	45	33	13	.....
1878	16	8	18	16	26	36	35	11	.....
1879	19	9	13	25	33	51	36	16	.....
Totals, 15 Years	251	143	245	254	352	483	459	131	8

It will be observed that a considerable proportion of deaths from diseases of the heart were of persons under twenty years of age. Contrary to the popular opinion, diseases of this class are frequently found in the earlier years of life. But such diseases, in persons under twenty years of age, are more amenable to treatment, and recoveries, more or less complete, are the rule rather than otherwise. In persons of middle age, and especially after attaining the age of fifty, the diseases have a more chronic character, and the recoveries are less in proportion.

More than one-third of the total deaths from diseases of the heart occur in persons between fifty and seventy years of age, and considerably more than one-half between the ages of fifty and eighty.

PNEUMONIA AND CONGESTION OF THE LUNGS.

The following Table shows, for each of the last fifteen years, the whole number of deaths reported in Rhode Island; the number and the percentage, with the sex and the parentage of the decedents from pneumonia and congestion of the lungs, and the number in each year, in each division of the State:

TABLE LX.

YEARS.	Whole Number of Deaths.	PNEUMONIA AND CONGESTION OF THE LUNGS.											
		Pneumonia, &c.	Per cent.	SEX.		PARENTAGE.		DIVISIONS OF THE STATE.					
				Males.	Females.	American.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County, Towns.	Providence City.	Washington County.
1865......	3,405	175	5.1	80	95	110	65	8	11	21	49	74	12
1866......	2,970	193	6.5	94	99	127	66	13	17	13	59	81	10
1867......	2,889	172	5.9	68	104	103	69	8	12	12	56	68	16
1868... ..	2,912	191	6.6	99	92	120	71	9	5	16	54	92	15
1869......	3,382	190	5.6	104	86	110	80	7	10	10	63	88	12
1870......	3,238	182	5.6	102	80	96	86	6	12	15	55	78	16
1871......	3,344	218	6.5	104	114	129	89	12	21	11	68	85	21
1872......	4,247	229	5.4	119	110	125	104	11	1	9	74	120	14
1873......	4,403	234	5.3	127	107	143	91	11	9	10	65	123	16
1874......	4,229	250	5.9	118	132	143	107	6	13	7	73	136	15
1875......	4,317	400	9.3	199	201	243	157	14	27	25	105	198	31
1876... ..	4,116	339	8.2	164	175	162	177	13	23	16	97	163	27
1877......	4,450	226	5.1	104	122	127	99	10	7	14	81	98	16
1878	4,441	317	7.1	143	174	176	141	10	11	18	110	140	28
1879......	4,472	311	7.4	148	163	163	148	7	15	15	103	156	15
Totals, 15 Years .	56,815	3,627	6.4	1,773	1,854	2,077	1,550	145	194	212	1,112	1,700	264

Next to consumption, pneumonia and congestion of the lungs, in a long series of years, show the largest average mortality. In 1879, however, scarlatina was the cause of an equal number of deaths, and in an occasional year some other form of disease has shown an equal or larger mortality.

The number of deaths in Rhode Island in 1879, from pneumonia and congestion of the lungs, was 311, a decrease of 6 from that of 1878. The average of fifteen years is 242 annually; and the average annual percentage to total mortality from known causes for the same period is 6.4, while the percentage of 1879 is 7.4, a difference of one per cent.

There is usually a preponderance of females in the decedents from inflammation of the lungs, and in 1878 the excess was 121.7 females to each 100 males. In 1879 the excess of female decedents was 110 to each 100 males. For a period of fourteen years preceding 1879 the average proportion was 104 females to each 100 males; or 51 females and 49 males in each 100 decedents.

The proportions in regard to parentage are much more unequal than in regard to sex.

In 1879, of the 311 decedents from pneumonia and congestion of the lungs, 163 were of American and 148 of foreign parentage; or 110 American to each 100 foreign; or 52.4 decedents of American parentage and 47.6 decedents of foreign parentage in each 100.

The difference of percentage of mortality, between the two classes of American and foreign parentage, was much less in 1879 than usual. In a period of fourteen years preceding 1879 the proportions were 57.7 of American and 42.3 of foreign parentage in each 100 decedents; or 136.5 of American to each 100 of foreign parentage.

The following Table shows, for each of the last fifteen years, the number of decedents in Rhode Island, from pneumonia and congestion of the lungs, in each division of ages:

TABLE LVII.

YEARS.	Under 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 and over.	Not stated.
1865	65	4	2	...	14	11	15	17	21	21	5	....
1866	57	4	4	5	12	10	14	21	25	32	9	...
1867	57	9	2	3	10	11	13	16	25	13	12	1
1868	70	4	3	3	15	8	16	13	19	27	13	....
1869	64	11	1	2	11	12	9	28	25	16	11	....
1870	84	6	5	4	6	7	8	14	20	19	8	1
1871	71	7	2	7	10	17	16	16	35	17	19	1
1872	83	5	1	7	17	20	19	22	24	19	11	1
1873	105	4	8	3	10	14	16	17	24	23	10	....
1874	76	9	4	6	17	17	25	21	40	27	8	....
1875	120	9	3	8	22	30	35	39	61	43	28	2
1876	116	5	4	3	20	20	32	35	48	39	17	....
1877	79	2	....	7	15	15	24	27	22	24	9	2
1878	115	9	4	10	14	17	28	20	42	45	13	....
1879	102	8	1	3	14	27	26	35	38	38	19	....
Totals	1264	96	44	71	207	236	296	341	469	403	192	8

It will not fail to be noticed, upon examination of the above Table, how largely the mortality from pneumonia and congestion of the lungs is found in the very young, and in the latest periods of life. About one-third of the whole number of decedents in 1879 from these causes were of persons under five years of age, and nearly another third over sixty years of age, leaving a little more than the remaining third to be distributed through periods coverings fifty-five years, and those of the most vigorous years of life. Feebleness of body gives success to the destructive tendencies of the disease.

TYPHOID FEVER.

The number of deaths in Rhode Island, in 1879, reported under the general title of "Fevers," was 114. This is 36 less than in 1878, and 20 less than in 1877. The number includes all reported under the following specific terms: "Gastric," 1; "Remittent," 2; "Typhoid or Typhus," 101; "Fever," 10. It is probable that nearly all fevers occurring in Rhode Island are essentially typhoid, the type being modified by a variety of circumstances. Of course the term is not designed to cover all febrile states, dependent on malaria or a variety of acute and chronic inflammations.

The following Table shows, for each of the last fifteen years, the whole number of deaths in the State; the number and the percentage, and the sex and parentage of the decedents from fevers, and the number in each division of the State:

TABLE LXII.

YEARS.	Whole Number of Deaths.	TYPHOID FEVER.											
		Typhoid Fever.	Per cent.	SEX.		PARENTAGE.		DIVISIONS OF THE STATE.					
				Males.	Females.	American.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County, Towns.	Providence City.	Washington County.
1865......	3,405	229	6.4	114	115	149	80	8	17	22	82	79	21
1866......	2,970	150	5.0	73	77	82	68	7	5	32	54	45	7
1867......	2,889	119	4.1	60	59	84	35	9	10	17	47	31	5
1868	2,912	84	2.9	45	39	57	27	4	5	7	30	23	15
1869......	3,382	101	3.0	53	48	79	22	7	7	1	37	33	16
1870......	3,238	153	4.7	66	87	80	73	5	11	14	57	49	17
1871	3,344	125	3.7	60	65	69	56	2	8	10	41	51	13
1872......	4,247	179	4.2	87	92	91	88	4	12	6	75	65	17
1873......	4,403	172	3.9	73	99	113	59	4	9	9	61	56	33
1874......	4,229	117	2.8	57	60	56	61	1	10	3	37	58	8
1875......	4,317	147	3.4	73	74	90	57	1	4	6	49	69	18
1876......	4,116	126	3.0	65	61	71	55	5	9	13	44	33	22
1877......	4,450	134	3.0	63	71	65	69	8	10	8	52	44	12
1878......	4,441	150	3.4	68	82	77	73	13	15	7	62	58	14
1879......	4,472	114	2.7	47	67	63	51	4	13	6	44	40	7
Totals, 15 Years .	56,815	2,100	3.07	1,004	1,096	1,226	874	82	145	161	772	734	225

The *percentage* of mortality from fevers in 1879 in proportion to all known causes of death was less than the average of fifteen years, and the *number of decedents* from that cause was less than in any year since 1869.

In regard to the sex of the decedents, there were 142.5 females to each 100 males; or 58.8 females and 41.2 males in each 100 decedents. This is a much larger disproportion than the average of a long term of years.

During the last fifteen years there were 1,004 male and 1,096 female decedents from fever; or 109 females to each 100 males; or 52.2 females and 47.8 males in each 100 decedents.

The difference in regard to the parentage of the decedents in 1879, was not so large as in the sex.

Of the 114 decedents from fever, 63 were of American, and 51 were of foreign parentage; or 123.5 American to each 100 of foreign; or 55.2 American and 44.8 foreign, in each 100 decedents.

The difference in 1879 is considerably less than the proportions of the aggregates of fifteen years.

The whole number of decedents during the last fifteen years from fever was 2,100, of which 1,226 were of American, and 874 were of foreign parentage.

There were then 140.2 American to each 100 foreign; or 58.4 of American and 41.6 of foreign parentage, in each 100 decedents.

The following Table shows the number of decedents from fevers, in each division of ages, in each of the last fifteen years, in the State of Rhode Island:

TABLE LXIII.

TYPHOID FEVER.	PERIODS OF LIFE.										
YEARS.	Under 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 and over.	Not stated.
1865	35	18	46	54	30	14	18	7	5	2	...
1866	23	10	21	26	21	16	9	14	10	....	...
1867	17	6	23	33	12	11	8	4	2	2	1
1868	10	7	10	21	8	8	10	4	5	....	...
1869	10	8	14	28	9	7	9	8	6	2	...
1870	15	13	28	39	16	20	7	7	6	1	...
1871	13	10	20	28	18	16	9	4	5	2	...
1872	17	18	34	54	20	9	12	11	3	1	...
1873	27	12	34	31	25	13	13	7	8	2	...
1874	10	14	26	32	9	5	10	3	6	2	...
1875	23	14	19	43	18	10	10	6	4	....	...
1876	21	10	15	24	14	9	6	16	6	3	2
1877	22	13	13	36	20	8	5	7	2	2	1
1878	17	16	27	47	13	11	12	2	3	2	...
1879	19	7	14	26	15	6	3	12	8	3	1
Totals	279	176	344	522	248	163	141	112	79	24	5

It will be seen that of the 114 deaths from fever in Rhode Island in 1879, 55, or nearly one-half, occurred in persons between fifteen and forty years of age; and of the 2,100 deaths from fever in a period of fifteen years, 1,114, or considerably more than one-half, occurred during the same twenty-five years of human life. The evidence is conclusive that, unlike pneumonia, its victims are found most largely in the most active and vigorous period of life, and predicated on these facts it may reasonably be presumed that in Rhode Island persons in vigorous life are more prone to fevers, especially of the typhoid form, and that the disease prevails much more largely among them.

COMPARATIVE RESULTS.

The following Table shows the percentage of total mortality from several prominent causes, as reported in 1879, in the whole State, and in the several divisions of the State; and also the percentages of the same causes in the whole State, in 1877 and 1878:

TABLE LXIV.

CAUSES OF DEATH.	Bristol County.	Kent County.	Newport County, Towns.	Newport City.	Providence County, Towns.	Providence City.	Washington County.	Whole State, 1879.	Whole State, 1878.	Whole State, 1877.
Accidents (all kinds)...........	1.42	3.24	5.50	2.52	1.87	2.64	1.81	2.43	2.89	3.10
Apoplexy and Paralysis........	8.51	3.25	10.53	9.96	5.76	4.42	4.55	5.21	4.45	4.25
Brain, Diseases of...	2.13	4.69	4.40	4.60	4.05	3.71	.45	3.73	3.28	3.68
Cancer........................	6.38	2.17	3.30	2.51	2.27	3.27	3.18	2.96	2.82	3.17
Cholera Infantum...	5.67	5.77	6.59	6.27	4.14	2.94	2.73	3.81	3.97	6.08
Consumption...........	11.35	13.72	10.99	14.64	15.98	14.53	21.83	15.09	15.98	15.52
Convulsions and Fits...........	.71	2.17	1.10	4.18	2.03	2.92	.91	2.47	2.65	1.95
Croup.......	2.13	2.17	......	6.27	2.03	2.13	1.82	2.28	2.20	2.23
Debility...............	4.25	.72	2.20	4.18	3.89	1.44	.91	2.35	1.91	2.65
Diarrhœa..........	.71	1.08	1.10	.84	1.14	1.58	.....	1.26	1.25	2.11
Diphtheria.....................	4.96	6.85	2.20	7.54	7.71	5.25	5.45	6.14	10.28	11.56
Dysentery.......	5.67	1.08	4.40	1.25	1.05	.50	1.36	1.04	.95	1.22
Fevers.......	2.84	4.69	4.40	1.26	3.49	1.98	3.18	2.70	3.94	3.55
Heart, Diseases of.	5.67	7.22	4.40	5.02	3.08	5.50	4.09	4.78	3.92	4.28
Hooping Cough...........	......	3.97	......	.42	.97	.74	1.82	1.02	1.28	.75
Hydrocephalus	1.42	1.44	1.10	.84	1.05	1.73	......	1.36	1.65	1.29
Kidneys, Diseases of....	.71	1.08	1.10	... ..	1.86	2.13	3.64	1.88	1.89	1.57
Liver, Diseases of.............	2.84	1.08	1.10	.42	1.05	1.04	2.73	1.17	1.06	1.06
Marasmus....	1.42	......	.. ...	2.51	1.05	1.39	.....	1.16	1.30	.99
Pneumonia and Congestion of the Lungs..................	4.96	5.42	4.40	4.60	8.36	7.72	6.81	7.37	7.49	5.31
Scarlatina....	2.13	2.17	3.30	.42	3.00	12.64	2.73	7.37	2.03	1.46

In the above Table there are brought together, in a compact form, the percentages of mortality from accidents and several important diseases, by which comparisons in various ways may be readily made.

It should be understood that the proportions are in relation to the whole number of deaths from given causes, in each of the several divisions, and in the whole State.

It has been frequently observed that the larger the community the more uniform, taking one year with another, will be the proportion of deaths from all the usual causes of death. This is true not only in proportion to total mortality from known causes, but also in proportion to population.

In the above Table we can compare the percentages of mortality from any one cause in more than one year, only in the whole State, the percentages in the different named localities being for the year 1879. It will be seen by an examination of the three last columns in the Table, that, with the exception of diseases which may and do occur as epidemics, the percentages of deaths in the whole State, during each of the last three years, from the same cause of death, do not very widely differ, and thereby show a marked contrast to the ratio of mortality from the same cause in the different divisions during the year 1879, as seen in the preceding columns.

It has been before observed that the large death rate from some causes in some localities, has been from the absence, or slight prevalence there, of causes of death prominent in other localities.

For instance, in Newport county towns, the deaths from apoplexy and paralysis were 10.5 per cent. of the whole number of deaths, but there were no decedents from croup, hooping cough or wasting from inanition, and the percentages of deaths from several common diseases, as will be seen in the Table, were exceedingly small, from which the legitimate inference would be, that those diseases were very limited in number, or at most existed only in their mildest form.

It will, therefore, be understood, that although the percentage of mortality from apoplexy and paralysis in Newport county towns, in 1879, was more than twice as large as the percentage of the whole State, it was in a considerable measure the result of a less proportion of deaths from other causes. It must be admitted, however, that apoplexy prevails largely in every year in Newport city and county towns in proportion to the population.

Cholera infantum also shows a large percentage of mortality in Newport county towns in 1879, a proportion about five times as large as that of 1878; and in Newport city a proportion twice as large.

Providence city shows a greatly diminished percentage of deaths from cholera infantum, not less than fifty per cent. compared with the average of ten years.

Consumption has an approximately established proportion in each and every year, in the whole State and in each division.

The differences of percentage of mortality in 1879 from this disease in the different divisions, are, however, quite considerable. The variations are from 11.35 per cent. in Bristol county, to 21.83 per cent. in Washington county.

Croup, which was much less prevalent than usual in all other parts of the State, was largely prevalent and quite fatal in Newport city, causing about one-sixteenth of the total mortality.

The small percentage of deaths from dysentery in the city of Providence, is especially to be noticed. Only one-half of one per cent., a proportion ten times smaller than that of Bristol county, and eight times smaller than that of Newport county towns, is quite remarkable.

Diphtheria, during 1879, gave way to the fearful epidemic of scarlet fever in Providence city, and was less prevalent in all parts of the State than during 1878.

It will be seen that the proportion of deaths from this cause, in 1879, was less than half that of 1877.

Fevers show a lessened mortality in nearly every division of the State, and especially in Newport city.

Pneumonia also shows a smaller death rate than in 1878, prevailing more largely in Providence county towns than elsewhere.

Scarlatina had slight prevalence only in any part of the State except in Providence and the immediate vicinity. In that city, as will be seen by reference to the Table, it was the cause of more than one-eighth of the total mortality.

The mortality from that cause in the whole State, was raised from 1.46 per cent. in 1877, to 7.37 per cent. in 1879.

Comments and comparisons in reference to the items found in Table LXIV. might be continued to an indefinite extent, but with the indications presented, the interested reader can pursue the lines of inquiry to any desired length.

Appended to this Report will be found the Registration Laws of Rhode Island, Chapter 77 of the General Statutes, as amended June, 1875; and April, 1878, by Chapter 680 of the Public Laws; together with said Chapter 680, establishing a State Board of Health, as amended March, 1880; and also Chapter 360 of the General Statutes, in relation to Divorces, as amended by said Chapter 680, and also a a synopsis of the Marriage Laws of Rhode Island.

C. H. F.

PROVIDENCE, November, 1880.

COLLECTION OF RETURNS.

In order to secure as far as possible complete returns of all the births, marriages and deaths, occurring in the different towns, very many plans and methods have been proposed and employed, during the twenty-eight years of registration.

In regard to births, it was for a number of years made the duty of the parents to make returns of each and every birth, as will be seen by the following section of a registration act which passed the General Assembly in 1854:

> SECTION 5. Of Births. As a large number of births annually take place without the assistance or intervention of strictly professional aid, it shall be the duty of each and every parent to make returns to said city or town clerk of the birth of each of his or her children, in manner and form aforesaid, at least within ten days after the same shall have occurred.

This provision of the law requiring returns to be made by the father or mother, and the duty of the physician or midwife in attendance upon the birth of a child to report the same, having been very generally neglected, it was found necessary to put that work into the hands of some responsible person in each town, who should thoroughly canvass his distinct territory, and by inquiry ascertain all the facts required by law in connection with the births occurring therein.

Upon the revision of the Public Statutes in 1877, section 5 of the chapter in relation to registration of vital statistics was amended so as to read as follows:

> SECTION 5. It shall be the duty of the clerk of each of the towns annually, in the month of January, to collect the facts required by section 3 of this chapter, in relation to all children born in the town during the year ending on the 31st day of December next preceding, &c.

This section is substantially the same as that which is now the law in relation to the returns of births.

In regard to returns of deaths, the law requires that the "undertaker, or the person who shall conduct a funeral, or who shall bury or deposit in a tomb, or who shall remove from this State or otherwise dispose of the remains of any deceased person or still-born child, shall first obtain the physician's certificate of cause of death, if a physician was in attendance upon such person who has deceased, or the person bringing forth such still-born child, and shall return the same, together with his own certificate of the facts required to be certified by him, on or before the second Monday of the next succeeding month to the clerk of the town where such death or bringing forth took place."

It also requires that whenever "any person shall die or any still-born child shall be brought forth in this State, it shall be the duty of the physician attending at such bringing forth or last sickness, if any physician so attended, within forty-eight hours after such death or bringing forth, to leave with the family, if any, or person having the care of the deceased or the person bringing forth such still-born child, or to give to the undertaker or person who conducts the funeral, a certificate stating, in case of a death, the name of the deceased, the date of the death and the disease or cause of the death, and in case of the bringing forth of a still-born child, the date and the cause of such child being brought forth still-born."

The provisions of both of the foregoing sections, partially quoted, are practically ignored in many of the country towns, and it therefore becomes necessary in order to obtain as completely as possible the full returns of deaths, that the canvasser of births should also make rigid inquiry in regard to the occurrences of death, and ascertain as far as possible all the facts in relation thereto.

Directions to this effect have been heretofore given, and the canvas of deaths has been for some years nearly, if not quite, as accurate and complete as that of births.

There has been a gradual improvement in all that appertains to the collection and record of vital statistics in the different towns, as evinced by the more full and complete statements of all the facts connected with the events of births, marriages and deaths, which are required by law.

This has been accomplished, however, only by frequently calling the attention of the persons whose duty it is to see that the work is efficiently done, to the requirements of the law, and the means of performance.

Circulars have from time to time been addressed to these parties, urging attention to their duties, and suggesting modes of procedure in collecting, and methods of recording, by which the labor might be facilitated and the results of record made more readily available.

In an early circular from the State Board of Health to the town councils, (as the legal town boards of health,) in relation to various sanitary requirements of the law, the following observations were made in regard to vital statistics:

It is hardly necessary in this connection to call your attention to the great value of correct registration of the births, marriages and deaths in your town. In their civil relations, affording definite evidence as to legal consanguinity, and legal settlement in cases of pauperism, rights of inheritance or entailments, rights and claims for pensions, insurance, or hereditary annuities. In their social relations, as a record and evidence of the public spirit, the moral tone and the disposition for associated interest in the family relation manifested at different periods of time. In their sanitary relations, though usually less apprehended they are no less important. Indeed, without them sanitary investigation would be greatly impeded. Without a record of births and deaths, the bodily vigor, the relative longevity, the average healthfulness, the tendency to particular diseases in any community, could scarcely be determined.

By such record, a clue to the laws of life and health is furnished. Such statistics afford the sanitarian standing ground for observing the effects of localities, conditions, employments and circumstances of life, as causations of disease and sources of mortality. But, for *exact conclusions* there *must be correct returns.* False premises lead to defective and deceptive deductions. An investigation of the methods by which the registration returns of this State have been obtained, and an examination and comparison of the returns so obtained, show that in some towns they are very inaccurate. The number of births returned from a town have been less than the number attended by one practitioner of medicine in the town. Great negligence has also been practised by undertakers and physicians in regard to the returns of deaths. Attention is called to section 12 of chapter 77 of the Statutes, with the hope that every town council will require a record of the names of all the classes therein named, and give due notice to the same that their duties as set forth in section 4, section 6 and section 8 of chapter 77 must be promptly performed.

More recently the following circular was sent to the different town clerks in relation to the collection of returns of births and deaths, and the disposition of the same:

OFFICE OF THE STATE BOARD OF HEALTH,
PROVIDENCE, December, 1880.

To the Town Clerk of the Town of ——:

DEAR SIR,—It is quite desirable that the returns of births, marriages and deaths from the several towns in the State should be as complete and accurate as possible. It is known that some births and deaths occur in the State that fail to be put on record. Among other causes of such failure, the most prominent is the removal of the families in which such births and deaths occur, out of the town in which they occurred, before the collector of returns of births and deaths canvasses the town for them. This defect in regard to births can be greatly remedied by a careful inquiry on the part of every collector of returns in regard to every child of one year old and less, found, *and to be found*, in the town which he is canvassing. When the collector finds a child whose birth occurred in some other town than the one he is canvassing, he should make the same inquiries as in other cases, and record on same blank returns; the said returns to be put in the hands of the town clerk as in other cases, and recorded by him in the town record, the same as of those whose births occurred in the town, with the exception of stating the town where the birth occurred.

After the town clerk has copied the town record of births on the large registration returns, and forwarded the same to the Secretary of the State Board of Health, he should then send the *collectors* small returns of births that have occurred in other towns to the town clerks of the towns where the births occurred.

The idea is, that the losses and gains in number in the different towns will thereby be best equalized, and the whole number of births in the State more fully ascertained.

The same idea will hold good, not only as between towns, but also as between States. The children born in other States during the year preceding the canvass, and found' in this State at the time of the canvass, will be about the same in number as of those born in this State and removed to another State before the canvass is made.

All children then, found in any town whose births occurred during the preceding year, will be enrolled in the town record of births of the town where residing at the time the canvass is made in January, and be forwarded to the State Registrar the same as those born in the town.

The collector should always be instructed to obtain returns of *all* deaths, which may come to his knowledge, whether previously reported to the town clerk or not, and if he obtains information and makes returns of deaths that occurred in other towns, and in families residing in the town which he is canvassing, at the time the returns are collected, the said returns should be recorded and transmitted to the town in which the death occurred, as in the case of births. The fees will be the same as in the ordinary returns.

Physician's certificate of cause of death should always be obtained when possible.

The necessity of exercising great diligence in obtaining correct information in regard to the vital statistics of the towns, should be strongly impressed on the minds of canvassers.

The registration returns of births, marriages and deaths which occurred in the several towns of the State, during the past year, and returnable to this office, should have the returns of each class by itself, and all the leaves of each class should be stitched, or otherwise fastened together in regular order, and the name of the class, whether births, marriages or deaths, and the town from which sent, should be written on the first outside page.

Some of the town returns come in in very good order, and some do not.

Yours respectfully,

CHARLES H. FISHER,

State Registrar.

The above circular, and extracts from preceding circulars, will serve to show in some measure the pains that are and have been taken, to secure as far as possible the best attainable results in the collection by the canvassers of the different towns of the facts in relation to all the circumstances connected with each of the events of births, marriages and deaths.

REPORTS FROM LOCAL BOARDS OF HEALTH.

It was observed in a previous report that it was the design of the Secretary to ask of the General Assembly the passage of an ACT by which it should be made the duty of the clerks of the local boards of health to give information when inquiry was made, to the Secretary of the State Board of Health, of such facts and circumstances in relation to disease in their respective localities as might have come to their knowledge.

It will not be forgotten that every town has a local board of health; the Statutes providing that the town council of every town shall by itself constitute a board of health for that town, and the board of aldermen of each city a board of health for that city, unless a special board of health be appointed by those bodies to act in their stead, and under their supervision and direction.

It would be a very unusual circumstance if a disease was prevalent of a severe character, affecting a large number of persons to the extent of disabling them from active exercise, even if not fatal in results; or a largely prevailing disease of a contagious character among domestic animals, dangerous or fatal to life, and the same not be known to the clerk of the local board of health.

It would seem reasonable then that such persons, by virtue of the official position which they hold, should give notice to the Secretary of the Board, to the end that action might be taken by the Board, if deemed necessary, in the direction of investigating the causes of the disease and devising the means of prevention or restriction.

It was with these views that an ACT in addition to the act establishing a State Board of Health was introduced into the General Assembly at the January session of 1880, which was passed, and by which the act establishing the Board was amended so as to read as follows:

SECTION 11. The Secretary of the said Board shall make inquiry from time to time, of the clerks of town and local boards of health, in relation to the prevalence of any disease, or knowledge of any known or generally believed source of disease, or causes of general ill-health, and also in relation to the proceedings of the said boards of health, in respect to acts for the promotion and protection of the public health, and also in relation to diseases among domestic animals in their several towns and localities respectively; and the said clerks of town and local boards of health shall give such information, in reply to said inquiries, of such facts and circumstances as have come to their knowledge.

In order that the Board may "take cognizance of the interests of life and health among the citizens of the State, and make investigations into the causes of disease, and the sources of mortality, and the effects of localities," it will be necessary to ascertain by inquiry where the diseases needing investigation exist, and where the localities which are the sources of mortality may be found.

It will be seen that the clerks of the local boards of health may be able to make communications to the State Board of very considerable value.

The Secretary has already received replies from those officials to inquiries made in regard to various subjects, and those in answer to a series of questions embodied in a circular sent in January, 1881, which will be found on another page, under the head of "Reports from Towns."

REPORTS OF MOST PREVALENT ACUTE DISEASES.

In the report made to the General Assembly, at the May session of 1880, there was presented for the first time tabulated summaries of the monthly returns from the different towns of the acute diseases having the largest prevalence in them during the preceding month.

Of the value of such reports to the student of sanitary science, it is hardly necessary in this connection to make extended remarks. Suffice to say, that they afford an indispensable link in the chain of facts and circumstances which furnishes the necessary material for such study.

But to the Secretary, who desires to keep track of the migratory diseases, and to ascertain what acute diseases appear *regularly* in certain towns at certain seasons, and what acute diseases appear *irregularly* in other towns in the same or in different seasons; with what degree of severity the different diseases appear *regularly* in certain towns, and *irregularly* in others; such reports or returns are absolutely necessary, if the duties of the Board as provided by law, in taking cognizance of the interests of life and health among the citizens of the State, and making investigations into the causes of disease, are complied with.

At first it was designed to ascertain by monthly reports from physicians, not only the diseases prevailing and degree of severity, but also the estimated per centage of mortality, the general amount of sickness of all kinds in comparison with that of corresponding months of previous years, the mean temperature of the atmosphere, the relative mean humidity of the soil and the atmosphere, the greatest range and character of the fluctuations of humidity and temperature, with the purpose of studying the character and kinds of disease, in connection with the meteorological conditions prevailing during the same periods of time.

The results of the first years attempts to accomplish such a purpose, by the voluntary and uncompensated aid of the physicians of the State, were such as to show the impossibility of the accomplishment of that purpose.

It requires on the part of a correspondent who gives valuable gratuitous service, and continues that service monthly or oftener for long periods of time, an interest and enthusiasm in the subject or labor to which his attention is given, not often found in the average practitioner of medicine, whose time is of value to himself, and to whom whatever leisure he may be able to enjoy free from the demands of his patrons, he desires to employ in recreation or some less distasteful labor.

I am happy, however, to state that there are some practitioners in the State who are always interested in whatever promises to advance the public welfare, and who are willing to give valuable service even at the expense of personal inconvenience and some pecuniary loss.

It was found, notwithstanding the disposition on the part of several correspondents, to fully carry out the purposes of the comprehensive series of questions, proposed in the first circulars and blank returns sent to correspondents for monthly reports, that the returns on the original blanks were, in a considerable proportion of the whole number, too scanty and incomplete to accomplish the desired object. A lack of uniformity in any one line of inquiry was largely fatal to definite conclusions in that direction.

It was found also that to some to whom they were sent the blanks presented such an appearance of complexity and formidableness as to deter from careful examination, and thus be found to be less complex than appearances indicated, and easily filled by any intelligent physician: and to others the idea of regularity and promptness and careful observation was too repugnant to their habits of freedom and irresponsibility, and thus the correspondence failed to be as complete as was to be desired.

It then seemed that a simpler return, which could be filled in a very few moments of time, and reporting only the acute diseases most largely prevailing with the order of prevalence in regard to the largest number of persons affected, the degree of severity, and proportional amount of general sickness as compared with corresponding months of ordinary years, would receive larger attention.

The following form of return, printed on postal cards, was then adopted:

RETURN OF DISEASES in ...
and vicinity, during the month of 1880.

Any disease prevalent, not on the list may be added in writing. In the column order of prevalence the figure 1 will signify the disease affecting the largest number, figure 2 next largest, and so on, fig. 0. that no cases are known. In column order of severity, *s* will signify severe, *a*, average, and *m*, mild. In column of general sickness, *a* will signify an average with other years; figures with sign + attached so much per cent. increase; with sign —, so much decrease. Please add name or initials, and send at end of each month.

	Order of prevalence.	Severity	General Sickness. Per cent.
Bronchitis			
Catarrhal Influenza			
Cerebritis.........			
Cholera Infantum			
Cholera Morbus...			
Croup Membranous			
Croup Spasmodic..			
Diphtheria........			
Diarrhœa..........			
Dysentery.........			
Fever Typhoid ...			
Meningitis Cerebral			
Measles...........			
Pharyngitis.......			
Pneumonia........			
Pleurisy..........			
Rheumatism			
Scarlet Fever......			
....			
....			
....			
....			
... .			

.... *M. D.*

This form of return was used through the year 1880, and the following tabulated summaries of reports of acute diseases most prevalent in the different towns, during that year, were compiled from these postal returns:

Summary of Reports of the most prevalent acute diseases in the several towns during JANUARY, 1880.

TOWNS.	Brain.	Degree of severity.	Nasal Passages.	Degree of severity.	Throat.	Degree of severity.	Bronchial Passages.	Degree of severity.	Lungs.	Degree of severity.	Croup.	Degree of severity.	Diphtheria.	Degree of severity.	Dysentery and Diarrhea.	Degree of severity.	Rheumatism.	Degree of severity.	Scarlet Fever.	Degree of severity.	Measles and Rotheln.	Degree of severity.	Erysipelas.	Degree of severity.	Typhoid Fever.	Degree of severity.	Hooping Cough.	Degree of severity.	Neurasthenia.	Degree of severity.	Mumps.	Degree of severity.
Warren			1	a.	2	m.	3	m.	5	m.							4	a.														
Coventry			1	a.	3	m.	2	s.									4	a.														
East Greenwich			1	m.	4	a.	2	s.	5	a.							3	m.														
West Greenwich			2		1	m.	3	a.			5	a.					4	m.														
Warwick			2	a.	3	m.	1	a.	5	a.							3	m.														
Little Compton			1	a.			5	m.			2	a.			3	s.									4	m.						
Middletown			1	m.	3	a.	2	a.					5	m.			4	m.														
Portsmouth			1	a.	2	a.	3	a.			4	m.																				
Tiverton			2	m.	1	m.	3	a.									4	m.														
Newport City	8	a.	3	m.			2	a.	1	a.	5	a.	7	a.			4	m.	6	a.												
Cranston			1	a.	2	a.	3	a.	4	m.							5	m.														
Cumberland			1	a.			2	s.	3	s.	4	a.					5	a.														
East Providence			1	m.	3	m.	2	a.	4	s.			6	a.					5	s.												
Johnston			2	m.	3	m.	1	s.	4	s.			6	a.					5	s.												
Lincoln			2	a.	3	a.	1	m.	4	m.	6	a.					5	m.														
North Providence			1	m.	3	m.	2	a.	4	s.			6	a.			5	m.														
North Smithfield			1	a.	3	a.	4	a.	2	m.	5	a.																				
Scituate			2	a.	3	m.	1	s.	4	a.	5	m.					6	a.														
Smithfield			2	a.	3	m.	1	s.	4	a.	5	m.					6	a.														
Woonsocket			1	a.	3	a.	2	m.	4	a.			6	a.			5	m.														
Providence City	8	a.	5	m.	6	m.	4	a.	2	s.	10	a.	3	a.					1	s.	9	a.			7	m.						
Exeter			1	s.	3	a.	2	a.									4	m.														
Hopkinton			3	m.	6	a.	2	s.			5	a.	4	m.			1	m.													1	m.
North Kingstown			3	a.			2	s.									1	m.														
South Kingstown			1	s.	3	a.	2	a.	4	a.							5	a.														
Richmond			2	m.	1	s.	3	a.	4	m.	5	m.																				
Westerly			1	m.	2	a.	3	a.			4	m.					5	a.													5	m.

Figure 1, in the different columns of the Table, indicates the disease affecting the largest number of persons. Fig. 2, the next largest number, and so on. The letters following the figures denote the degree of severity; s. signifying severe, a. average, and m mild. Towns not on the list in the Table failed to make returns.

Summary of Reports of the most prevalent acute diseases in the several towns during FEBRUARY, 1880.

TOWNS.	Brain.	Degree of severity.	Nasal Passages.	Degree of severity.	Throat.	Degree of severity.	Bronchial Passages.	Degree of severity.	Lungs.	Degree of severity.	Croup.	Degree of severity.	Diphtheria.	Degree of severity.	Dysentery and Diarrhœa.	Degree of severity.	Rheumatism.	Degree of severity.	Scarlet Fever.	Degree of severity.	Méasles and Rotheln.	Degree of severity.	Erysipelas.	Degree of severity.	Typhoid Fever.	Degree of severity.	Hooping Cough	Degree of severity.	Neurasthenia.	Degree of severity.	Mumps.	Degree of severity.
Barrington			4	a.	1	m.	3	a.	2	a.			6	m.			5	a.														
Warren			2	a.	1	a.	4	s.	3	a.							5	a.														
Coventry			2	s.	1	a.	3	a.	4	a.																						
East Greenwich			1	a.	4	a.	2	a.	3	s.																						
Warwick			1	a.	3	m.	2	a.	4	s.																						
Little Compton			3	m.	2	m.	1	a.	4	s.																						
Middletown			2	m.	4	a.	3	a.	1	m.							5	m.														
Portsmouth			1	m.	3	m.	2	m.	4	a.																						
Tiverton			2	a.	3	a.	1	a.	5	a.							4	a.														
Newport City	6	a.	2	m.	5	m.	3	a.	1	a.	7	s.					4	a.														
Cranston			2	a.	1	s.	3	a.	4	a.							5	a.														
Cumberland			3	s.	4	s.	1	s.	2	a.	7	m.			5	s.			6	a.												
East Providence			1	a.	3	s.	4	a.	5	a.			4	a.					2	s.												
Johnston			1	a.	2	s.	6	s.	5	s.			4	a.					3	s.												
Lincoln			3	a.			2	a.	1	a.			5	m.					4	a.												
North Providence			1	a.	2	a.	3	s.	6	s.			5	a.					4	s.												
Pawtucket			3	a.	5	m.	2	a.	1	a.			6	m.					4	a.												
Scituate			2	a.	3	s.	1	a.	4	a.			6	a.			5	m.														
Smithfield			2	a.	3	a.	1	m.	4	s.							5	a.														
Woonsocket			1	m.	2	m.	3	m.	4	a.			6	a.													5	a.				
Providence City			5	a.	6	s.	4	s.	2	a.			3	a.			10	a.	1	a.	9	m.			7	a.	8	m.				
Exeter			2	m.	1	a.	3	a.	4	s.			5	m.																		
Hopkinton			3	m	1	s.	6	a.	7	a.	5	m.	8	m.			4	a.							9	s.					2	m.
North Kingstown			1	a.	4	a.	2	a.	3	s.																						
Richmond			2	m.	1	a.	3	a.	4	a.			6	m.			5	m.														

Figure 1, in the different columns of the Table, indicates the disease affecting the largest number of persons. Fig. 2, the next largest number, and so on. The letters following the figures denote the degree of severity; s. signifying severe, a. average, and m. mild. Towns not on the list in the Table failed to make returns.

Summary of Reports of the most prevalent acute diseases in the several towns during MARCH, 1880.

TOWNS.	Brain.	Degree of severity.	Nasal Passages.	Degree of severity.	Throat.	Degree of severity.	Bronchial Passages.	Degree of severity.	Lungs.	Degree of severity.	Croup.	Degree of severity.	Diphtheria.	Degree of severity.	Dysentery and Diarrhœa.	Degree of severity.	Rheumatism.	Degree of severity.	Scarlet Fever.	Degree of severity.	Measles and Rotheln.	Degree of severity.	Erysipelas.	Degree of severity.	Typhoid Fever.	Degree of severity.	Hooping Cough.	Degree of severity.	Neurasthenia.	Degree of severity.
Barrington			4	m.	5	m.	2	a.	1	a.							3	a.												
Warren			8	m.	4	m.	1	a.	3	a.	7	a.			6	m.	2	a.							5	a.				
Coventry			3	m.	2	a.	1	s.	4	a.							5	m.												
East Greenwich			2	a.	3	s.			1	a.							4	a.												
Warwick			2	m.	4	a.	3	a.	5	s.							8	m.	6	a.					7	a.				
Little Compton			1	m.	3	s.	4	a.	2	s.	7	a.					5	a.							6	m.				
Middletown			3	m.	4	m.	2	a.	1	a.																				
Newport City	7	a.	3	m.	5	m.	2	a.	1	a.	6	m.					4	a.												
Cranston			2	a.	1	a.	3	m.	4	s.							6	m.	5	a.										
Cumberland					5	m.	1	s.	4	a.	3	m.	8	a.	6	a.	2	a.	7	s.										
East Providence					3	a.	2	a.	1	m.	6	a.	5	a.					4	a.										
Foster			1	a.	2	m.	4	a.	3	m.			5	a.			6	m.												
Glocester	4	s.	3	a.	5	a.	1	a.	2	m.																				
Johnston					3	s.	2	a.	1	a.	6	a.	5	m.			7	m.	4	a.										
Lincoln					2	a.	1	s.	3	a.	7	a.	6	a.	8	a.	4	a	5	s.										
North Providence			1	a.	3	a.	2	a.	4	s.	6	m.	8	a.			5	m.	7	a.										
Pawtucket			3	a.	2	a.	1	s.	5	a.	6	m.					4	a.												
Scituate			1	m.	2	m.	4	a.	3	a.			6	a.			5	m.												
Smithfield			2	a.	3	a.	4	a.	1	a.							5	m.												
Woonsocket					2	a.	1	a.	3	a.			5	a					6	a.							4	a.		
Providence City			7	m.	5	a.	4	m.	3	a.			2	m.					1	a.					6	s.				
Exeter			2	m.	3	m.	1	a.	4	s.	6	m.					5	m.												
Hopkinton			3	a.	3	a.	2	s.	7	m.	4	a.	5	m.			6	m.	1	s.										
North Kingstown			2	a.	3	s.			1	a.							4	a.												
Richmond			3	a.	8	a.	2	s.	7	m.	4	a.	5	m.			6	m.	1	s.										
Westerly			7	a.	5	a.	2	a.	3	a.	6	a.	1	s.			9	a.							4	a.			8	s.

Figure 1, in the different columns of the Table, indicates the disease affecting the largest number of persons. Fig. 2, the next largest number, and so on. The letters following the figures denote the degree of severity; s. signifying severe, a. average, and m. mild. Towns not on the list in the Table failed to make returns.

Summary of Reports of the most prevalent acute diseases in the several towns during APRIL, 1880.

TOWNS.	Brain.	Degree of severity.	Nasal Passages.	Degree of severity.	Throat.	Degree of severity.	Bronchial Passages.	Degree of severity.	Lungs.	Degree of severity.	Croup	Degree of severity.	Diphtheria.	Degree of severity.	Dysentery and Diarrhœa.	Degree of severity.	Rheumatism.	Degree of severity.	Scarlet Fever.	Degree of severity.	Measles & Rotheln.	Degree of severity.	Erysipelas.	Degree of severity.	Typhoid Fever.	Degree of severity.	Hooping Cough.	Degree of severity.	Neurasthenia.	Degree of severity.
Barrington			3	m.			2	a.	1	a.					4	m.														
Warren			2	a.			1	a.	4	a.					3	m.	5	a.									6	s.		
Coventry			1	m.	7	m.	3	m.	2	a.			4	m.			6	m.												
East Greenwich			2	a.	5	s.	6	a.	1	m.			4	s.											3	m.				
West Greenwich			1	m.			2	m	3	a.							4	m.												
Warwick			2	m.	3	a.	4	a.	1	m.			7	m.			6	m.							5	a.				
Little Compton			5	m.	4	m.	2	s.	1	s.	7	a.					6	s.							3	m.				
Middletown			1	m.	4	m.	2	a.	3	a.							5	a.												
Portsmouth			1	a.	3	a.			2	a							4	m.	5	m.										
Tiverton			1	a.	2	a.	6	s.	3	m.							5	a.	4	m.										
Newport City			1	a.	4	m.	2	a.	3	m.	7	m.			6	m.	5	m.												
Cranston			1	a.	4	m.	2	a.	3	s.							5	a.							6	s.				
Cumberland			6	a.	3	a.	1	a.	2	s.	9	a.	8	s.	7	a.	4	a.	10	s.			5	a.						
East Providence			4	m.	5	s.	2	a.	1	a.			6	m.					3	a.										
Foster			1	m.			2	m.	5	m.			3	m.					4	m.					6	m.				
Glocester			2	a.	1	m.	5	a.	4	m.							3	a.												
Johnston			4	m.	5	m.	2	a.	1	m.	6	a.	4	m.			7	m.	3	a.										
Lincoln			3	m.	5	a.	1	a.	2	m.			6	m.			4	a.												
North Providence			2	a.			1	a.	3	m.	7	m.	5	m.			6	m.	4	a.										
North Smithfield			5	m.	2	m.	1	s.	3	a.									4	a.										
Pawtucket			4	m.	3	m.	1	a.	2	a.			7	m.			5	m.	6	a.										
Scituate			3	m.	4	a.	2	a.	1	a.							5	m.												
Smithfield			2	m.	4	m.	3	a.	1	a.																				
Woonsocket	6	a.			2	a.	1	s.	3	a.	7	s.	8	a.					5	a.							9	m.		
Providence City	8	a.	6	a.	5	a.	3	s.	4	a.	10	a.	2	m.	9	a.			1	a.					7	m.				
Exeter			2	a.			3	a.	1	a.			4	m.			6	m.	5	a.										
Hopkinton			2	a.	1	s.	4	m.	3	a.			7	a.	6	a.	5	m.	8	a.										
North Kingstown			2	a.	4	m.	3	a.	1	m.			5	s.																
South Kingstown			3	a.	5	a.	2	a.	1	m.			4	a																
Richmond			4	a.	5	a.	3	s.	2	a.	8	m.	6	m.	9	a.	7	a.	1	a.										
Westerly			6	m.	3	m.	7	m.	4	a.	2	s.	1	s.															5	s.

Figure 1, in the different columns of the Table, indicates the disease affecting the largest number of persons. Fig. 2, the next largest number, and so on. The letters following the figures denote the degree of severity; s. signifying severe, a. average, and m. mild. Towns not on the list in the Table failed to make returns.

Summary of Reports of the most prevalent acute diseases in the several towns during

MAY, 1880.

TOWNS.	Brain.	Degree of severity.	Nasal Passages.	Degree of severity.	Throat.	Degree of severity.	Bronchial Passages.	Degree of severity.	Lungs.	Degree of severity.	Croup.	Degree of severity.	Diphtheria.	Degree of severity.	Dysentery & Diarrhœa.	Degree of severity.	Rheumatism.	Degree of severity.	Scarlet Fever.	Degree of severity.	Measles and Rotheln.	Degree of severity.	Erysipelas.	Degree of severity.	Typhoid Fever.	Degree of severity.	Hooping Cough.	Degree of severity.	Neurasthenia.	Degree of severity.	Intermittent Fever.	Degree of severity.
Barrington					1	m.	2	a.			4	a.					3	m.														
Warren			2	a.	3	m.	1	a.							6	a.			5	a.					4	a.	7	s.				
East Greenwich			1	m.	4	a.	5	m.	2	m.							3	a.											6	s.		
Warwick			1	a.			2	a.	4	m.	5	m.					3	a.														
Little Compton			5	m.	3	m.	4	m.									1	a.							2	m.						
Portsmouth			2	m.	3	m.	1	m.																								
Tiverton	5	a.	3	m.	2	m.	1	m.									4	a.													6	a.
Newport City																																
Cranston			1	a.			2	a.	3	a.							4	m.														
Cumberland					7	a.	8	a.	3	m.			4	m.	2	a.	6	m.	5	a					1	a.						
East Providence									1	m.			2	m.			3	m.	4	a.												
Foster			1	m.			2	m.	5	m.			3																			
Glocester					4	a.	2	a.							3	m.			4	m.					6	m.	1	m.				
Johnston							2	a.	1	a.			3	m.					4	a.					5	a.	6	m.				
Lincoln			4	m.	5	m.	2	m.							3	a.	5	a.	1	s.												
North Providence							1	m.	2	a.			5	m.			3	m.	4	a.												
North Smithfield			2	m.			5	a.	1	m.			4	m.					3	a.												
Pawtucket			4	m.			1	a.					3	m.	5	m.			2	a.												
Scituate					2	a.	1	a.	5	m.			3	m.			6	m.	4	a.					7	s.						
Smithfield					1	m.	4	m.			6	m.	3	m.			5	m.	2	a.												
Woonsocket			3	a			7	a.	2	a.			5	m.	6	m.			1	a.	4	m.										
Providence City	9	s.					6	a.	3	a.			2	m.			4	m.	1	a.	3	a.			5	s.	7	a.				
Charlestown			6	m.			2	a.	7	a.	3	m.	5	m.																		
Exeter			1	a.	2	a.	3	m.	4	a.					5	m.																
Hopkinton			3	a.	1	a.	2	m.							4	m.			5	a.												
North Kingstown			1	a.			2	a.	3	m.							4	a.											5	a.		
South Kingstown																																
Richmond			6	m.			2	a.	7	a.	3	a.	5	a.	4	a.			1	m.												
Westerly			3	a.	4	a.			7	a.	8	a.	2	s.	6	m.									1	a.			5	s.		

Figure 1, in the different columns of the Table, indicates the disease affecting the largest number of persons. Fig. 2, the next largest number, and so on. The letters following the figures denote the degree of severity; s. signifying severe, a. average, and m. mild. Towns not on the list in the Table failed to make returns.

Summary of Reports of the most prevalent acute diseases in the several towns during

JUNE, 1880.

TOWNS.	Brain.	Degree of severity.	Nasal Passages.	Degree of severity.	Throat.	Degree of severity.	Bronchial Passages.	Degree of severity.	Lungs.	Degree of severity.	Croup.	Degree of severity.	Diphtheria.	Degree of severity.	Dysentery & Diarrhea.	Degree of severity.	Rheumatism.	Degree of severity.	Scarlet Fever.	Degree of severity.	Measles and Rotheln.	Degree of severity.	Cholera Infantum.	Degree of severity.	Typhoid Fever.	Degree of severity.	Hooping Cough.	Degree of severity.	Cholera Morbus.	Degree of severity.	Malarial Fever.	Degree of severity.
Barrington			4	m.	5	m.	2	m.	1	m.					7	m.	3	m.					6	m.								
Bristol	8	s.	2	a.	4	a.	3	m.	6	a.	9	m.					5	a.	1	a.					7	s.						
Warren			3	m.	7	m.	1	m.	2	a.					6	m.	4	a.					5	m.	8	a.						
East Greenwich			1	a.					5	m.					2	m.					4	m.			3	a.					6	a.
Warwick			1	m.											3	m.					2	m.			4	m.			5	m.		
Little Compton											5	a.	1	s.	2	s.			4	m.			3	s.								
Portsmouth							3	a.	4	s.					1	a.									5	m.			2	m.		
Tiverton	6	s.							3	s.					1	a.	5	a.					2	a.	4	m.			6	a.		
Newport City																																
Cranston			1	a.	3	a.	2	a.					5	s.	6	m.	4	a.														
Cumberland					7	a.	8	m.	2	a.			10	s.	1	a.	3	a.	4	a.			9	m.					4	m.		
East Providence			2	m.	1	m.									3	m.			4	a.												
Foster			1	m.			2	m.	5	m.			3	m.					6	m.					4	m.						
Glocester															2	m.							4	m.	3	a.	1	m.	5	s.		
Johnston					1	m.	2	m.							4	m.			3	a.			5	m.								
Lincoln			2	m.											1	m.			6	a.			3	m.	4	m.			5	m.		
North Providence					1	m.	2	m.							3	m.			4	a.												
North Smithfield							1	a.							2	m.			3	a.	4	m.							5	m.		
Pawtucket			2	m.			3	m.							1	m.			4	a.			5	m.	7	m.			6	m.		
Scituate			5	m.			4	m.							1	a.							2	m.					3	a.		
Smithfield					1	a.	4	m.					3	m.	2	a.							5	m.								
Woonsocket			4	m.			1	a.							6	m.			2	s.	3	m.							5	m.		
Providence City	6	a.							5	s.			3	m.	8	a.			1	a.	2	m.	7	a.	4	a.						
Charlestown			1	s.	4	a.	5	a.							2	a.	3	a.														
Exeter			1	s.	3	a.	2	a.							4	m.																
Hopkinton			6	m.	1	s.	7	m.					4	m.	3	a.	8	m.	5	a.									2	a		
North Kingstown			1	a.	3	a.			5	m.					2	m.	4	m.														
Richmond			1	s.	4	a.	3	a.							2	a.	5	a.														
Westerly			3	m.	5	m.	4	m.					2	m.															1	m.	6	m.

Figure 1, in the different columns of the Table, indicates the disease affecting the largest number of persons. Fig. 2, the next largest number, and so on. The letters following the figures denote the degree of severity; s. signifying severe, a. average, and m. mild. Towns not on the list in the Table failed to make returns.

Summary of Reports of the most prevalent acute diseases in the several towns during JULY, 1880.

TOWNS.	Brain.	Degree of severity.	Nasal Passages.	Degree of severity.	Throat.	Degree of severity.	Bronchial Passages.	Degree of severity.	Lungs.	Degree of severity.	Croup.	Degree of severity.	Diphtheria.	Degree of severity.	Dysentery and Diarrhea.	Degree of severity.	Rheumatism.	Degree of severity.	Scarlet Fever.	Degree of severity.	Measles and Rotheln.	Degree of severity.	Cholera Infantum.	Degree of severity.	Typhoid Fever.	Degree of severity.	Hooping Cough.	Degree of severity.	Cholera Morbus.	Degree of severity.	Malarial Fever.	Degree of severity.
Barrington			4	m.	3	a.	2	a.							1	a.									6	m.			5	a.		
Warren			4	m.			5	m.	7	a.					3	a.	6	m.					1	a.					2	a.		
East Greenwich															3	a.									2	m.			1	m.		
Warwick			4	m.									2	m.	1	a.	6	m.	5	a.									3	m.		
Portsmouth					5	m.	6	m.							3	m.					2	m.	4	a.					1	m.		
Tiverton	5	m.			6	m.									4	m.					1	a.	3	a.					2	a.		
Newport City																																
Burrillville																																
Cranston	6	a.	3	m.									2	m.	1	a.			3	a.			4	a.								
Cumberland					6	m.	7	a.	4	a.					3	a.	5	a.	8	a.			2	s.					1	s.		
East Providence													4	m.	1	a.							2	a.					3	m.		
Foster															1	a.									2	m			3	a.		
Glocester	4	m.													1	m.											2	m.	3	a.		
Johnston					5	m.									2	m.							3	a.	1	a.			4	m.		
Lincoln	7	a.	5	m.	6	m.	3	a.							4	m.	9	m.	8	s.			2	a.					1	a.		
North Smithfield	5	a.													1	m.					4	m.	2	a.					3	m.		
Pawtucket	4	a.			6	m.			7	a.					3	a.							1	a.	5	m.			2	m.		
Scituate													3	a.	2	a.							1	s.	4	m.			5	a.		
Smithfield					5	m.									1	a.							2	a.	4	m.			3	m.		
Woonsocket	5	s.													1	m.					3	m.	4	m.					2	m.		
Providence City	4	a.							6	a.			5	m.	2	a.			4	a.			1	a.	7	m.	8	m.	3	m.		
Charlestown			7	s.									6	m.	2	s.	5	a.	4	m.									1	a.		
Exeter			5	a.	2	a.									1	a.							4	a.	3	m.						
Hopkinton	7	s.	8	a.	3	m.									2	a.	5	a.					6	a.	4	a.			1	s.		
North Kingstown			5	a.	4	m.									2	a.									3	a.			1	a.		
Richmond			5	a.											1	a.							4	a.					2	a.		
Westerly					7	a.			5	a.			4	a.	1	s.							3	a.					2	a.	6	s.

Figure 1, in the different columns of the Table, indicates the disease affecting the largest number of persons. Fig. 2, the next largest number, and so on. The letters following the figures denote the degree of severity; s. signifying severe, a. average, and m. mild. Towns not on the list in the Table failed to make returns.

Summary of Reports of the most prevalent acute diseases in the several towns during

AUGUST, 1880.

TOWNS.	Brain.	Degree of severity.	Nasal Passages.	Degree of severity.	Throat.	Degree of severity.	Bronchial Passages.	Degree of severity.	Lungs.	Degree of severity.	Croup.	Degree of severity.	Diphtheria.	Degree of severity.	Dysentery and Diarrhea.	Degree of severity.	Rheumatism.	Degree of severity.	Scarlet Fever.	Degree of severity.	Measles and Rotheln.	Degree of severity.	Cholera Infantum.	Degree of severity.	Typhoid Fever.	Degree of severity.	Hooping Cough.	Degree of severity.	Cholera Morbus.	Degree of severity.	Malarial Fever.	Degree of severity.
Barrington			6	m.			4	m.							3	a.	5	m.							7	m.			2	a.	1	a.
Warren			5	m.			4	m.	6	m.					1	a.	7	a.					2	a.					3	a.		
East Greenwich			4	m.											1	a.							2	a.	3	a.						
Little Compton			2	s.							6	a.			1	m.	5	a.					3	m.	4	m.						
Tiverton							5	m.	6	m.					3	m.	7	m.					2	a.	4	m.			1	m.		
Newport City																																
Cranston	7	a.											6	m.	1	a.			5	a.			2	a.	3	a.			4	m.		
Cumberland	9	a.	3	a.	7	m.	8	a.			5	m.			1	m.							2	m.	4	m.			6	m.		
East Providence	8	a.			4	a.					5	m.	7	m.	1	a.			6	a.			2	m.	3	m.						
Foster			4	m.	2	m.							3	m.	1	a.			5	m.												
Johnston	7	a.											6	m.	1	a.			4	a.			2	s.	3	s.			5	a.		
Lincoln			3	a.	7	m.	4	m.							5	a.							2	m.	6	m.			1	m.		
North Providence	4	a.			6	a.	5	a.					7	m.	1	a.							3	m.	2	a.						
Pawtucket	8	a.			6	m.	5	m.					7	m.	1	a.							2	a.	3	m.			4	m.		
Scituate							5	m.							2	s.							1	s.	4	a.			3	a.		
Smithfield					5	m.	4	m.							1	a.							2	a.	3	m.						
Providence City	7	a.							8	s.			6	m.	2	a.			5	a.			1	a.	4	m.	3	m.				
Charlestown			5	a.											1	a.	4	m.					3	a.					2	m.		
Hopkinton			5	m.	4	a.	6	m.							2	s.	7	a.							3	a.			1	a.		
North Kingstown			4	m.											1	a.							3	a.	2	a.						
South Kingstown			4	a.											1	a.							2	a.					3	m.		
Richmond			5	a.											1	a.	4	m.					3	a.					2	m.		
Westerly					8	a.			7	a.			3	s.	1	s.			5	s.			2	a.	6	a.			4	a.	9	a.

Figure 1, in the different columns of the Table, indicates the disease affecting the largest number of persons. Fig. 2, the next largest number, and so on. The letters following the figures denote the degree of severity; s. signifying severe, a. average, and m. mild. Towns not on the list in the Table failed to make returns.

Summary of Reports of the most prevalent acute diseases in the several towns during

SEPTEMBER, 1880.

TOWNS.	Brain.	Degree of severity.	Nasal Passages.	Degree of severity.	Throat.	Degree of severity.	Bronchial Passages.	Degree of severity.	Lungs.	Degree of severity.	Croup.	Degree of severity.	Diphtheria.	Degree of severity.	Dysentery and Diarrhea.	Degree of severity.	Rheumatism.	Degree of severity.	Scarlet Fever.	Degree of severity.	Measles and Rotheln.	Degree of severity.	Cholera Infantum.	Degree of severity.	Typhoid Fever.	Degree of severity.	Hooping Cough.	Degree of severity.	Cholera Morbus.	Degree of severity.	Malarial Fever.	Degree of severity.
Barrington			6	a.			5	a.	3	a					2	m.									4	a.					1	s.
Warren			5	a.			4	a.	2	a.													3	m.							1	s.
East Greenwich									2	a.			5	a.			3	a.							1	a.			4	m.	6	m.
Little Compton			1	s.			2	a.	4	m.					3	m.																
Tiverton									2	m.					3	m.	5	s.							1	m.			4	m.		
Newport City																																
Cranston	9	a.			6	a.					8	m.	5	m.	2	a.			7	a.			3	a.	1	a.			4	a.		
Cumberland			3	m.	5	m.	2	a.							1	m.							7	m.	4	a.			6	m.		
East Providence					6	m.							4	m.	2	m.			5	a.			1	m.	3	a.						
Johnston	8	a.			7	m.					4	m.	5	m.	1	a.			6	a.			3	m.	2	a.						
Lincoln	8	a.	3	a.	7	m.	2	a.							1	m.							5	m.	6	a.			4	m.		
North Providence	7	a.	2	a.	8	m.	3	a.							1	m.							6	m.	5	a.			4	m.		
Pawtucket	7	a.	3	m.	8	m.	5	a.							1	a.							2	a.	4	m.						
Scituate											6	a.	5	s.	4	a.							2	a.	1	a.			3	a.		
Smithfield					6	a.							5	a.	1	a.							2	a.	3	a.			4	m.		
Providence City	6	a.									8	m.	5	m.	2	a.			4	a.			1	a.	3	a.	7	m.				
Charlestown			8	s.									5	a.	2	a.	4	m.	1	a					3	m.			7	a.	6	m.
Exeter							5	a.							3	a.	4	m.	1	m.					2	a.			6	m.		
Hopkinton			9	a.			8	a.							3	a.	7	m.	2	m.			6	a.	1	a.			5	s.		
North Kingstown			6	a.					2	a.			5	a.			3	a.							1	a.			4	m.		
Richmond			4	s.									3	a.	5	m.	6	m.	2	a.					7	m.			8	a.	1	m.
Westerly							8	a.	6	m.	9	a.	4	a.	2	s.			7	m.			1	s.	5	m.			3	a.	10	m.

Figure 1, in the different columns of the Table, indicates the disease affecting the largest number of persons. Fig. 2. the next largest number, and so on. The letters following the figures denote the degree of severity; s. signifying severe, a. average, and m. mild. Towns not on the list in the Table failed to make returns.

Summary of Reports of the most prevalent acute diseases in the several towns during

OCTOBER, 1880.

TOWNS.	Brain.	Degree of severity.	Nasal Passages.	Degree of severity.	Throat.	Degree of severity.	Bronchial Passages.	Degree of severity.	Lungs.	Degree of severity.	Croup.	Degree of severity.	Diphtheria.	Degree of severity.	Dysentery and Diarrhœa.	Degree of severity.	Rheumatism.	Degree of severity.	Scarlet Fever.	Degree of severity.	Measles and Rotheln.	Degree of severity.	Cholera Infantum.	Degree of severity.	Typhoid Fever.	Degree of severity.	Hooping Cough	Degree of severity.	Cholera Morbus.	Degree of severity.	Malarial Fever.	Degree of severity.
Barrington			7	a.	4	a.	3	a.	2	a.			8	m.					6	a.					5	a.					1	a.
Warren			7	a.	2	a.	1	a.	3	a.	8	a.	9	a.			4	m.	5	a.					6	a.	10	a.				
East Greenwich							5	a.	3	m.					2	m.									1	a.			4	m.		
Little Compton			1	s.			5	a.	2	m.	3	s.													4	m.						
Portsmouth			2	s.			3	a.	4	m.	5	a.													1	m.						
Tiverton			5	s.							4	m.					2	m.	3	m.					1	m.						
Cranston			3	a.	4	a.			2	a.	5	m.	6	m.					7	a.					1	m.						
Cumberland	8	a.	1	m.	6	m.	2	m.			4	m.			5	m.	9	m.							7	m.			3	m.		
East Providence	9	a.	2	m.	3	a.			1	a.	4	m.	6	m.			7	m.	8	a.					5	a.						
Foster			1	m.									2	m.					6	m.			3	m.	5	a.			4	m.		
Glocester			3	m.	1	m.											4	m.							2	m.						
Johnston	8	a.	2	m.	3	a.	4	a.	1	a.			5	m.					7	a.					6	a.						
Lincoln			2	m.	4	m.	1	m.			3	a.			6	m.									5	m.						
North Providence			1	m.	3	m.	4	m.	2	a.			5	m.					7	a.					6	m.						
North Smithfield			2	a.			3	a.	6	s.							5	m.			1	m.			4	m.						
Pawtucket	9	a.	2	m.	4	a.	3	a.	1	a.	5	a.	7	m.					8	a.	10	m.			6	a.						
Scituate					3	a.			4	a.			2	a.			6	m.							1	a.	5	a.				
Smithfield					1	a.			2	a.			5	m.			4	m.	6	a.					4	a.						
Woonsocket	8	s.	2	a.			3	a.	7	a.					4	m.	6	a.			1	a.			5	m.						
Providence City	5	a.					8	m.	2	a.			4	m.					3	a.			6	m.	1	a.	7	m.				
Charlestown			6	a.	5	m.							4	m.	1	s.	7	a.							2	s.			3	a.	8	m.
Hopkinton			6	m.	1	s.							5	s.	2	a.									3	a.			4	a.		
North Kingstown					4	a.	5	a.	3	m.					2	m.									1	m.						
Richmond			4	a.					5	a.			3	a.	6	a.	7	a.	2	m.					1	m.					8	m.
Westerly			8	a.			7	a.			9	a.	1	m.	5	a.			3	s.			6	a.	2	a.					10	m.

Figure 1, in the different columns of the Table, indicates the disease affecting the largest number of persons. Fig. 2, the next largest number, and so on. The letters following the figures denote the degree of severity; s. signifying severe, a. average, and m. mild. Towns not on the list in the Table failed to make returns.

Summary of Reports of the most prevalent acute diseases in the several towns during NOVEMBER, 1880.

TOWNS.	Brain.	Degree of severity.	Nasal Passages.	Degree of severity.	Throat.	Degree of severity.	Bronchial Passages.	Degree of severity.	Lungs.	Degree of severity.	Croup.	Degree of severity.	Diphtheria.	Degree of severity.	Dysentery and Diarrhœa.	Degree of severity.	Rheumatism.	Degree of severity.	Scarlet Fever.	Degree of severity.	Measles and Rotheln.	Degree of severity.	Erysipelas.	Degree of severity.	Typhoid Fever.	Degree of severity.	Hooping Cough.	Degree of severity.	Neurasthenia.	Degree of severity.
Barrington			3	a.	2	m.	1	m.	5	m.	4	m.													6	a.	7	a		
Warren			2	a.	6	m.	1	a.	7	a.	4	a.					3	a.							5	a.	8	a.		
East Greenwich			2	m.					3	m.			5	m.	6	m.			4	m.					1	a.				
Little Compton			3	a.	4	s.	2	s.	1	s.	5	s.																		
Portsmouth			1	m.			3	a.	3	a.											5	m.			4	m.				
Tiverton							3	m.	2	a.											1	m.			4	m.				
Newport City																														
Cranston			1	m.	4	m.	3	a.	2	a.			5	m.			6	m.	7	a.					8	a.				
Cumberland			1	m.	2	a.	3	a.			4	m.					5	m.			6	m.								
East Providence			2	m.	1	m.	4	m.	3	a.			6	m.			7	m.	8	m.					5	a.				
Foster			2	m.			1	m.					3	m.					4	m.					5	m.				
Glocester	3	s.					1	m.									4	m.							2	m.				
Johnston			1	m.	4	m.	2	a.	3	a.			5	m.			7	m.	6	a.					8	a.				
Lincoln			1	m.	2	m.	3	a.	8	s.	4	m.			5	a.	10	m.			6	m.			7	m.				
North Providence			2	m.	4	a.	3	a.	2	a.			6	m.			5	m.	7	a.										
North Smithfield			3	a.	6	a.	2	a.	3	m.							4	m.			1	m.			5	m.				
Pawtucket			1	m.	2	m.	1	a.	5	m.			8	m.			7	m.			5	m.			6	a.				
Scituate			8	a.	6	m.	4	a.	7	m.	3	s.	5	a.											2	a.	1	a.		
Smithfield			1	m.	4	m.	2	m.	3	a.			5	m.			6	m.							7	m.				
Woonsocket			3	a.	7	a.	2	a.	6	a.							4	a.			1	m.			5	m.				
Providence City	8	a.	2	m.	9	m.	4	a.	1	a.	8	a.	6	m.			5	a.	7	m.					3	a.	4	m.		
Charlestown			2	m.	1	a.	6	a.	5	m.			4	m.					3	m.					7	a.				
Hopkinton			2	a.	1	s.	6	m.	8	a.	7	s.	3	a.	5	a.	6	a.	9	m.					4	m.				
North Kingstown			2	m.					3	a.			5	a			4	m.	6	m					1	m.				
Richmond			3	a.			7	m.	5	a.			4	a.			6	a.	2	m.					1	m.				
Westerly	6	m.	3	m.			5	m.	8	m.	4	m.	1	a.			9	m.	2	s.					7	m.				

Figure 1, in the different columns of the Table, indicates the disease affecting the largest number of persons. Fig. 2, the next largest number, and so on. The letters following the figures denote the degree of severity; s. signifying severe, a. average, and m. mild. Towns not on the list in the Table failed to make returns.

Summary of Reports of the most prevalent acute diseases in the several towns during DECEMBER, 1880.

TOWNS.	Brain.	Degree of severity.	Nasal Passages.	Degree of severity.	Throat.	Degree of severity.	Bronchial Passages.	Degree of severity.	Lungs	Degree of severity.	Croup.	Degree of severity.	Diphtheria.	Degree of severity.	Dysentery and Diarrhœa.	Degree of severity.	Rheumatism.	Degree of severity.	Scarlet Fever.	Degree of severity.	Measles and Rotheln.	Degree of severity.	Erysipelas.	Degree of severity.	Typhoid Fever.	Degree of severity.	Hooping Cough.	Degree of severity.	Neurasthenia.	Degree of severity.
Barrington			1	m.	3	m.	2	m.	6	a.	5	m.					7	m.	8	m.							9	a.		
Warren			2	a.	3	a.	1	a.	7	a.	5	a.	6	a.			8	a.	10	a.					4	a.	9	a.		
East Greenwich			1	a.	5	m	4	m.	2	a.							3	m.												
Warwick			3	a.	1	a.	2	a.	4	a.	6	m.	5	m.			7	m.												
Little Compton			1	s.	3	m.	2	a.	5	s.			4	m.			6	s.												
Middletown																														
Portsmouth			1	m.	2	m.	4	a.	3	m.							5	a.												
Tiverton			3	a.	5	a.	2	a.									4	a.			1	a.								
Cranston			3	m.	4	m.	2	a.	1	m.			5	m.					6	m.							7	a.		
Cumberland			2	a.	3	s.	1	a.	4	s.	5	m.			6	m.					7	a.								
East Providence			2	a.	3	a.	4	a.	1	m.			5	m.					6	m.										
Foster			1	m.			3	a.	2	a.									5	m.					4	m.				
Johnston			2	a.	4	m.	3	a.	1	a			6	m.					5	a.							7	a.		
Lincoln			2	a.	3	s.	1	a.	4	a.	6	m.			5	m.					7	m.								
North Providence			2	a.	3	a.	4	m.	1	m.			6	m.			5	m.	7	m.										
North Smithfield			3	a	6	m.	4	a.	2	a.							5	m.			1	m.								
Pawtucket			2	m.	4	m.	3	a.	1	m.			6	m.			5	m.												
Scituate					4	a.	3	a.	5	m.	6	a.	2	s.													1	a.		
Woonsocket			3	m.	7	a.	2	a.	4	m.							5	a.			1	m.			6	a.				
Providence City	9	a	3	a.	4	m.	2	a.	1	a.	8	m.	7	m.					6	a.							5	m.		
Charlestown			1	a.			5	a.	3	s.			2	a.			6	m.							4	m.				
Exeter			2	a.	1	a.	4	a.	5	s.															6	m.				
Hopkinton			3	a.	1	s	4	m.	6	s.	9	s.	10	a.	2	s.	7	a.	8	m.					5	m.				
North Kingstown			1	a.	5	m.	4	a.	2	m.							3	a.												
Richmond			1	s.					4	a.			2	a.			5	a.							3	m.				
Westerly	8	a.	3	a.			4	m.	7	m.	5	m.	1	a.			6	m.	2	s.					9	a.				

Figure 1, in the different columns of the Table, indicates the disease affecting the largest number of persons. Fig. 2, the next largest number, and so on. The letters following the figures denote the degree of severity; s. signifying severe, a. average, and m. mild. Towns not on the list in the Table failed to make returns.

RETURNS OF PREVALENT DISEASES.

In the tabulated summaries of monthly reports of the acute diseases most prevalent in the several towns, in each of the different months of the year, presented on the preceding pages, there is much to interest the sanitarian in noting the changing or apparent transmission of certain contagious diseases from one town to another; the persistence of the same and others in clinging to some one locality during the entire year; the various degrees of severity in which the different diseases appear in the different towns; the different relative proportions of prevalence in comparison of one disease with another; and many other aspects and phases of condition and circumstances appertaining to the appearance and continuance of the various diseases in the various sections of the State.

As stated in a previous report, if the returns of the prevalence of diseases in *all* the towns throughout the State, with the attendant circumstances, fully reported monthly, as desired by the Secretary, could be accomplished promptly and continuously, it would afford great facilities for studying the spread of the contagious and infectious diseases, in regard to the mode of transportation or travel; that is, whether they are communicated from one town to another in a direct line of travel as a rule, where communication is frequent and uninterrupted; or whether their mode of travel is by leaping over portions of territory as it were, and reappearing in towns or places at a distance, and not contiguous with those where they had prevailed at a time immediately preceding.

If it should be found that any one of the contagious or infectious diseases which is in any important degree fatal to life, moved in any regular and straightforward path, it would be a fact of great value, as affording to those who were seemingly in its line of travel, an opportunity at least to prepare for its approach and presence, if it did not indeed afford the possibility of arresting its progress altogether. It is only by collecting a great number of observations, and a comparison of them when so collected, that the nature and characteristics of all diseases, whether transmissible or not, can be ascertained. And it is also by a great number of observations made in any town or section, and reported from time to time. that it can be determined, with any degree of accuracy, what diseases that town or section is especially liable to, and what means may be taken for their prevention or restriction.

It will be observed that in the tabulated summaries of monthly returns, on the preceding pages, the columns of meteorological conditions, relative to temperature, humidity and fluctuations of the weather, as presented in the Second Annual Report of the Secretary, are omitted.

It was found by the results of observations during the year 1879, taken in various sections of the State, that the meteorological conditions of the different sections were quite uniform, the principal differences being in regard to humidity from summer showers.

It was therefore decided to make the mean average results of the observations taken in the vicinity of Providence city and in the city of Newport the mean average for the State. These have been collected, and with a monthly account of the fluctuations in relation to frequency and range of temperature, kept by the Secretary, the general results in each of the months, will be found in the following pages.

METEOROLOGY.

It was remarked in the Second Annual Report of the Board, in allusion to the monthly reports of meteorological observations made in the several towns in the State, that there were few differences of any magnitude in regard to mean humidity, or range, and frequency of change; and that in regard to mean temperature the monthly reports were also very uniform, and so continued through the year.

It was also remarked that the uniformity having continued so steadily through the twelve months of the year, it seemed to settle the question, presumably at least, that such observations made at two or three points, which would cover the possible differences between the meteorological conditions of the inland towns and those upon the bay and seashore, would answer for all practical purposes for all the towns in the State.

In order to present a general summary of the meteorological conditions prevailing throughout the State, in each of the several months of the year 1880, recourse has been had to the Signal Station at Newport, under charge of Col. Wm. McGillivray, Sergeant Signal Corps U. S. Army, and the office of the City Engineer of Providence.

The tables, kindly furnished from each of these sources, will be found on the following pages. The observations reported at the City Engineer's office in Providence were made at the City Hall, and at the pumping stations of the city water works in Providence and Cranston:

METEOROLOGICAL TABLE.

From City Engineer's Office, Providence.

1880.	Maximum Temperature.	Minimum Temperature.	Mean Temperature.	Average Daily Range of Temperature.	Monthly Range of Temperature between Maximum and Minimum.	Total Rainfall.	Prevailing Direction of Wind.
January	60.	—1	34.5	20.2	61.	3.26	N. W.
February........	63.	—2	32.4	20.7	64.	6.30	N. W.
March..........	69.5	15.5	35.2	14.7	54.	5.20	N. W.
April..........	68.	24.	48.5	17.2	44.	3.92	S. W.
May............	93.	39.	65.6	17.3	54.	1.00	S. W.
June	93.	45.	70.1	18.2	48.	1.26	N. W.
July............	90.	54.	74.2	14.7	36.	7.31	S. W.
August.........	86.	48.	70.6	16.4	38.	6.25	S. W.
September......	88	42.	64.	14.3	46.	2.52	S. W.
October..	74.	28.	50.3	18.2	46.	3.69	N. W.
November.. ...	66.	12.5	38.6	16.7	43.5	3.78	N. W.
December......	45.	—1	25.5	13.7	46.	3.79	N. W.
Whole year.....	....	....	50.8	Total of rain and melted snow during the year.....		48.28	inches.

METEOROLOGICAL TABLE.

From Station of Signal Service Corps U. S. A., Newport.

1880.	Maximum Temperature.	Minimum Temperature.	Mean Temperature.	Average Daily Range of Temperature.	Extreme Range of Temperature.		Total Rainfall.	Prevailing Direction of Wind.	Monthly Range of Temperature (*i. e.* difference between highest maximum and lowest minimum Temperature).
					Greatest Daily Range.	Least Daily Range.			
January	61.5	15.0	38.3	16.1	33.5	8.5	2.14	S. W.	46.5
February	56.0	2.5	35.8	17.4	35.5	9.0	3.65	W.	53.5
March........	59.5	14.0	36.7	14.6	27.0	5.0	5.93	N. W.	45.5
April.........	63.0	26.0	45.5	14.2	22.5	5.0	4.69	S. W.	37.0
May	84.5	37.0	58.4	14.3	30.5	4.0	1.12	S. W.	47.5
June	86.0	49.0	66.9	15.7	25.0	8.0	1.95	S. W.	37.0
July..........	88.0	58.0	71.5	13.3	22.0	7.0	5.86	S. W.	30.0
August	84.0	53.0	69.2	13.4	22.0	6.0	7.15	S. W.	31.0
September....	87.0	48.0	64.3	12.4	20.5	6.0	2.80	S. W.	39 0
October.......	70.0	33.5	53.5	14.7	22.5	9.5	3.59	S. W.	36.5
November	64.0	15.0	41.1	13.7	22.5	7.0	4.01	W.	49.0
December.....	50.0	1.5	29.7	14.0	22.0	8.5	4.87	W.	48.5
Mean annual	tempe	rature	50.9	Total amount of rain and melted snow during the year.....			47.76	inches.	

WM. McGILLIVRAY,

Sergeant Signal Corps U. S. A.

It will be observed how nearly equal, as shown by the preceding Tables, were the mean annual temperatures of the cities of Providence and Newport. It will also be noticed that the total amount of rain and melted snow in the two locations varied very little less than one ninety-fifth of the total amount in either city.

The greatest difference shown is in the monthly range between the maximum and minimum temperatures, where the variations run from maximum 7.2 degrees in May to minimum 0.3 degree in September. On the average the daily temperature was higher in the winter in Newport, and lower in the summer than the average daily temperature in Providence. These differences show that the fluctuations of temperature in Newport, the changes from heat to cold, are not so great in degree, and consequently a somewhat more equable and uniform climate is found in the southern than in the northern divisions of the State, according to the observations of 1880.

The prevailing direction of the wind modifies in a great measure the conditions of temperature, humidity and degree of change, and it is found by consulting the Tables that in the southern section of the State the prevailing direction has been from the southwest; in only one month during the year, *i. e.* March, has a northerly wind been most prevalent, while in the northern section of the State a northerly wind has been most prevalent during seven months of the year.

These differences in the direction of the wind have had their largest influences it would seem, judging from the mean annual temperature and rainfall of the two sections, in the production of greater extremes of heat and cold, in the sudden atmospheric changes of the northern divisions of the State.

A large number of interesting facts may be ascertained by a comparison of the various items presented in the Tables; but the principal object in collecting and preserving such tables is, after a sufficiently long period of years, to study the connections or various relations existing between certain forms of disease, and the degrees of temperature and moisture of the atmosphere. The State Board of Health must, at least for the present, depend on the voluntary aid of such institutions as furnished the above Tables for such observations.

ANNUAL REPORTS OF MEDICAL CORRESPONDENTS.

At the end of the year a blank circular was sent to each of the medical correspondents for a more comprehensive general report in relation to disease, presumable causes of disease, and the sanitary condition of localities during the preceding year in their respective circuits.

The following form of circular was sent for that purpose:

CIRCULAR H.

OFFICE OF SECRETARY OF THE STATE BOARD OF HEALTH.

PROVIDENCE, Jan. 1, 1881.

To Physicians:

A year since it seemed desirable in addition, and supplementary to, the *Monthly* returns of regular correspondents, to obtain from all respectable physicians in every section of the State an Annual Report covering the whole twelve months preceding.

The following questions will indicate the information sought, and the general plan of such report; but correspondents need not be confined to precise replies to the questions presented, all the freedom being allowable of such modifications and additions, as the circumstances or peculiarities of each locality may seem to warrant.

These annual reports are desired for the purpose of presenting the status of the public health and the sanitary conditions existing in the different sections of the State, during the year 1880, in the Third Annual Report of the State Board of Health.

They should be returned to the Secretary of the Board by the second week in February.

Any additional postage stamps needed to cover postage on more extended consideration of the topics suggested, or any other topic having relation to the public health, will be immediately refunded on the receipt of papers.

QUESTIONS.

1. Name of city or town, and circuit.

2. What has been the general amount of sickness, of all kinds, in your circuit in 1880, as compared with ordinary years? If greater or less, how much? Estimated.

3. What epidemics have prevailed in your circuit during the year 1880? If any, give the names in the order of their occurrence, in regard to date; the length of time they were prevalent; the degree of severity, and the localities where they prevailed.

4. What endemic diseases, if any, have been prevalent in your circuit during the year 1880? Please describe the peculiarities, if any, and the localities where they occurred.

5. What, in your opinion, is the probable cause, or causes of the endemics described?

6. What diseases of common occurrence, not strictly endemic nor contagious, have had an unusually large prevalence in your circuit during the year?

7. What contagious or infectious diseases have prevailed in your circuit, without becoming epidemic?

8. What diseases have been attended with an unusual fatality?

9. What circumstances have occurred within your observation or knowledge, that seemed to indicate that scarlet fever, diphtheria or typhoid fever had been taken, or communicated from one person to another? A full history of known facts in detail should be given. Such history need not be confined to any particular year. State on separate sheet.

10. What localities in your circuit do you consider peculiarly unhealthy? giving names and geographical position, and the diseases most prevalent, whether

endemic or otherwise, and what you consider the causes of the peculiar unhealthiness.

11. Have any changes been made, during the year 1880, in your locality, or any other locality having village characteristics, in your circuit, in relation to better drainage, more complete removal of excretæ, house refuse, garbage, &c., and have there been any other new measures. public or private adopted, to promote better sanitary conditions? State what, if any.

12. What influence, in your opinion, had the prolonged drouth of the last half of the year 1880, in the production or promotion of diseases? And, if any, in what manner, and of what diseases?

13. Has there been, in your opinion, any advance in the public sentiment of your circuit, in regard to the importance of sanitary surroundings: or any increased interest in questions appertaining to means of preventing diseases, and promoting individual and general health? State what reasons for belief.

14. Are there any localities in your circuit, which, without being considered generally unhealthy, are in your opinion promotive of pulmonary consumption, gravel, calculus, malarial or any other diseases? If any, state locality and form of disease.

Physicians receiving this circular, it is believed, will have the courtesy to fill the blank spaces between the questions in response to the same, and thus confer a favor on the State Board of Health, and show an interest in public sanitation by contributing from their knowledge, experience and observation, such statements of facts as have a practical bearing on the questions that underlie all investigation, into the causes and means of prevention of disease.

CHAS. H. FISHER, *Secretary.*

REPLIES TO CIRCULAR H.

The following reports, received from local correspondents of the medical profession in the several cities, towns, and villages of the State, will give a good representation of the general status of the public health during the year 1880, as to the presence or absence of epidemics or endemics in the several locations, the sanitary conditions and improvements, if any, in their several circuits, and other suggestions in response to the preceding circular:

BRISTOL COUNTY.

1. Warren and part of Barrington.

2. The general amount of sickness, of all kinds, within the limits of this town in 1880, as compared with ordinary years, has been about one-third less.

3. Malarial fevers prevailed in Barrington largely in September and October. No epidemics, to my knowledge, existed to any large extent.

4. None, unless the malarial fevers be so called that prevailed somewhat extensively in some parts of Barrington in September and October, about the brick yards and low grounds to the Providence river, occasioned, in my opinion, by filling up ponds of stagnant water and the dry and hot seasons for the last two or three years. Some persons had two or three attacks in succession.

6. No diseases of common occurrence, not strictly endemic nor contagious, have had an unusually large prevalence in this town during the year.

7. Very few contagious or infectious diseases have prevailed in this town during the year.

8. No diseases have been attended with an unusual fatality.

9. Scarlet fever occurred several times during the year 1880, but did not spread, probably owing to the great precaution taken. There were a few fatal cases during the year, but they did not have the malignant character that it has in some seasons.

11. No changes have been made, during the year 1880, in this town, in relation to better drainage, or more complete removal of excretæ, &c., and few, if any, new measures, public or private adopted, to promote better sanitary conditions.

12. The long drouths of last season produced, besides the malarial fevers already mentioned, typhoid tendencies or types in low cases of fever or slow fever.

13. I think sanitary measures are considered by this committee of great importance in warding off diseases, but not greatly practiced.

14. I know of no localities in this town which are particularly promotive of pulmonary consumption, gravel, calculus, malarial or any other diseases.

OTIS BULLOCK.

1. Warren ; Barrington and Bristol, in part.

2. The amount of sickness, of all kinds, in this circuit in 1880, as compared with ordinary years, has been a general average.

3. The epidemics that have prevailed in this circuit during the year 1880, or

diseases that may become such, are: 1st, intermittent fever; 2d, scarlet fever; 3d, whooping cough; 4th, typhoid fever. 1st, Barrington, surrounding Nayatt brick yards; 2d, Warren; 3d, Warren; 4th, Warren. 1st, severe; 2d, severe in a few cases; others not so severe; 3d and 4th, average. 1st, summer and autumn; 2d, fall and early winter; 3d and 4th, during the year in remote cases.

4. No endemic diseases have been prevalent in this circuit during the year, unless the intermittent fever at the Nayatt brick yards should prove to be such.

7. The contagious or infectious diseases that have prevailed in this circuit, without becoming epidemic, have not been very general, but cropped out in different families in sporadic cases.

8. No diseases have been attended with an unusual fatality.

9. The circumstances that have occurred within my observation or knowledge, during 1880, that seemed to indicate that scarlet fever, diphtheria or typhoid fever had been taken, or communicated from one person to another, are similar to the cases given in detail last year.

10. In Warren, the northerly part of town, in tenements of factory operatives, and carelessness in reference to filth thrown out, stagnant cess pools, &c.

11. No changes have been made, during the year 1880, in this locality, in relation to better drainage, more complete removal of excretæ, house refuse, garbage, &c., except in the northerly part of the town. Some care was taken to renovate and cleanse that district by the mill corporation, but without much avail, as the foreign employees are peculiarly careless in respect to their surroundings.

12. The remarkable development of intermittent fever in Barrington was doubtless, in part, due to the prolonged drouth in 1880, especially as it lay bare extensive artificial pond tracts, causing much vegetable decomposition.

13. Very little, if any advance in public sentiment is shown in this circuit, in regard to the importance of sanitary surroundings; or increased interest in questions appertaining to means of preventing diseases, and promoting individual and general health.

14. No localities in this circuit, not generally unhealthy, are in my opinion promotive of pulmonary consumption, gravel, calculus, malarial or any other diseases, unless as stated above.

G. L. CHURCH.

KENT COUNTY.

1. East Greenwich, and parts of Warwick and North Kingstown.

2. The general amount of sickness, of all kinds, in my circuit, in 1880, as compared with ordinary years, is estimated at 10 per cent. below average.

3. No marked epidemics have prevailed here during the year.

4. A few cases of typhoid fever, supposed to have arisen from faulty household arrangements, but nothing very marked. No fatal cases.

5. Probably caused by accumulations in cesspool and privy vaults, or proximity of these to wells.

6. Of the diseases of common occurrence, not strictly endemic nor contagious, that have had an unusually large prevalence in my circuit during the year, influenza, catarrhal fever and pneumonia may be said to have predominated.

7. No contagious or infectious diseases have prevailed in this circuit.

8. No diseases have been attended with an unusual fatality.

9. In regard to circumstances that have occurred within my observation or knowledge, that seemed to indicate that scarlet fever, diphtheria or typhoid fever had been taken, or communicated from one person to another, I may say, the past year affords too few data for conclusions on this point. From experience in past years, the infection from all these diseases seems very much confined in virulence to families and circumscribed neighborhoods : but instances can be recalled where the first two have been transported by convalescents for many miles.

10. There are no localities in my circuit considered peculiarly unhealthy.

11. No changes have been made, to my knowledge, during the year 1880, in any locality in my circuit in relation to better drainage, more complete removal of excretæ, house refuse, garbage, &c., and there have been no new measures of prominence, public or private adopted, to promote better sanitary conditions.

12. I have not noticed that the prolonged drouth of the last half of the year 1880 had any influence in the production or promotion of diseases.

13. I think there has been but little advance in sentiment among officials of my circuit in regard to the importance of sanitary surroundings ; or any increased interest in questions appertaining to means of preventing diseases, and promoting individual and general health.

14. I know of no localities in this circuit which, without being considered generally unhealthy, are promotive of pulmonary consumption, gravel, calculus, malarial or any other diseases.

J. H. ELDREDGE.

1. East Greenwich, and parts of Warwick, Coventry, West Greenwich, and North Kingstown.

2. The general amount of sickness, of all kinds, in 1880, as compared with ordinary years, was, by estimate, one-third less.

3. No epidemic has prevailed during the year.

4. No endemic diseases have been prevalent in my circuit during 1880.

6. There has not been an unusually large prevalence of any particular disease.

7. There have been a few cases of typhoid fever, and also of scarlet fever.

8. No particularly fatal diseases have occurred.

9. Have had only 8 or 10 cases of scarlet fever during the year. In 3 cases it seemed to be communicated directly from one child to another. In the other

cases they seemed to be sporadic. A few sporadic cases of diphtheria. Through August, September, October and November had a few cases of typhoid fever; two cases in one family, both sick at one time, and no evidence of communication in any of the cases.

10. No particularly unhealthy locality.

11. No changes or improvements have been made in relation to drainage or to promote better sanitary conditions, public or private.

12. I do not know of any particular influence that the prolonged drouth of the last half of the year 1880 had in the production or promotion of diseases.

13. There has been no advance in this direction.

14. There are no localities in my circuit which, without being considered generally unhealthy, are in my opinion particularly promotive of pulmonary consumption, gravel, calculus, malarial or any other diseases.

E. G. Carpenter.

1. Warwick and Coventry, and villages on north and south branches of the Pawtuxet River.

2. The general amount of sickness, of all kinds, in my circuit in 1880, as compared with ordinary years, was about an average. In the early part of the year there was not much sickness: but in the fall, and summer particularly, it was quite sickly.

3. No epidemics have prevailed largely, as such, in this circuit during the year 1880. There were the usual summer complaints, not unusually severe, cholera infantum and diarrhœa; not much dysentery. In the latter part of the year, typhoid fever and scarletina prevailed to some considerable extent.

4. There were no endemic diseases prevalent as such in my circuit during the year 1880. The localities where they occur sometimes, are usually in manufacturing districts.

5. The causes probably are small and overcrowded tenements, heat and bad drainage and filth.

6. No diseases of common occurrence, not strictly endemic nor contagious, have had an unusually large prevalence in this circuit during the year, so far as I know.

7. The contagious or infectious diseases that have prevailed in the circuit are as follows: In the fall and early winter there has been some typhoid fever, and scarlet fever has been prevalent, especially in November and December, so much so that it might be called epidemic.

8. No disease has been attended with unusual fatality. Scarlatina has affected more adults than usual.

9. In regard to circumstances that have occurred under my observation or knowledge, that seemed to indicate that scarlet fever, diphtheria or typhoid fever

had been taken, or communicated from one person to another, I may remark that I have no doubt of the contagion from scarlet fever, and have seen nothing this year to change that opinion. I have some facts that would seem to militate against the contagion of typhoid. Of diphtheria I have seen but little this season.

10. There are some localities which I consider peculiarly unhealthy. I have found some places where typhoid fever showed itself that I supposed peculiarly healthy, but the fever was confined to this locality, and could only be accounted for by deeming that its germs came through drinking water. It was confined to two houses, which were isolated from the rest of the village, and were not in close proximity.

11. No changes have been made during the year, by the authorities or otherwise, in relation to better drainage or removal of excretæ, garbage, &c., and no other measures, so far as I know, public or private adopted, to promote better sanitary conditions.

12. The prolonged drouth of the last half of the year 1880 had no influence, so far as I know, in the production or promotion of disease.

13. I have seen no evidence of any advance in the public sentiment in regard to the importance of sanitary surroundings, or any increased interest in questions appertaining to means of preventing diseases, and promoting general health.

14. I regard the low and damp places along the rivers as peculiarly liable to diseases of the lungs and air passages, and occasionally diseases of malarial origin seem to affect those in such localities, though not more so this year than in other years.

J. KENYON.

NEWPORT COUNTY

1. Little Compton.

2. The general amount of sickness, of all kinds, in my circuit in 1880, as compared with ordinary years, has been two per cent. less

3. No epidemics have prevailed in this town during the year 1880.

4. No endemic diseases have been prevalent in this circuit during the year 1880.

6. The diseases of common occurrence, not strictly endemic nor contagious, that have had an unusually large prevalence in my circuit during the year are diarrhœa and catarrhal influenza. The latter has prevailed through the year.

7. No contagious or infectious disease has prevailed in this circuit, except scarlatina in sporadic cases.

8. The only disease that has been attended with an unusual fatality was Bright's disease of the kidneys.

10. All farms bordering upon the swamps and marshes I consider unhealthy; but, as a general rule here, there is but very little sickness that arises from that cause.

11. The farmers are very much more careful in the matter of removal of excretæ, refuse and garbage, and the effect is seen in healthier children.

12. The influence of the prolonged drouth here was felt more by the old people and the children; but I cannot say that I think it produced or promoted any disease.

13. As to any advance in the public sentiment of this town in regard to the importance of sanitary surroundings, it may be said that from the appearances in my daily rides I can judge very truly that people here think and act more sensibly in a sanitary point of view. The slop-bucket is not emptied so frequently by the side of the well.

14. In regard to localities in this town, which, without being considered generally unhealthy, are in my opinion promotive of pulmonary consumption, gravel, calculus, malarial or any other diseases, I may say that cases of urinary gravel are very frequent around one locality in particular, viz.: Tuniper's pond. The reason I have been unable to explain as yet.

I. B. COWEN.

1. Tiverton.

2. The general amount of sickness, of all kinds, in this circuit in 1880, as compared with ordinary years, has been about fifteen per cent. greater.

3. No special epidemics have prevailed during the year. During the last two months of the year measles have prevailed, especially in School Districts Nos. 1, 3, 4 and 12; a few severe cases, but mostly mild to average.

4. No endemic diseases have been prevalent in my circuit during the year.

6. No diseases of common occurrence, not strictly endemic nor contagious, have had an unusually large prevalence in this town during the year.

7. The contagious or infectious diseases that have prevailed in this circuit, without becoming epidemic, are scarlet fever, typhoid fever and dysentery.

8. No diseases have been attended with an unusual fatality.

9. As to circumstances that have occurred within my observation or knowledge that seemed to indicate that scarlet fever, diphtheria or typhoid fever had been taken, or communicated from one person to another, I relate the following cases in regard to scarlet fever: A lad from Fall River on a visit to an aunt came down with the disease. In due time all the other children (3) were taken sick, one of which died of the disease. The disease in this instance was confined to the family, strict quarantine being observed. Also other cases where strict quarantine was not enforced, and the disease spread into two or three families, which, being quarantined, the disorder was suppressed.

11. Not any.

12. Diarrhœal diseases of children seemed to be prolonged and more severe during the drouth than before.

13. The people of this town with but few exceptions are not specially informed in sanitary improvements.

14. It is an almost prevailing custom to use well water, many of which are brackish and contain mineral substances. I am inclined to consider such waters as promotive of gravel, calculi, etc., of which disorders we have occasional cases. A few families use filtered cistern water.

E. P. Stimson.

1. Newport.

2. There has been a slight increase in the general amount of sickness during 1880 over the previous three years.

3. During the fall of 1880 there was a slight epidemic of scarlet fever, all the cases being of a very mild character. During the last three months of the year there was a wide-spread epidemic of measles, the disease attacking the old as well as the young.

4. Answered in No. 3.

5. The scarlet fever cases were confined chiefly to the children attending one of the schools, and arose from a case imported into the city.

6. Rheumatism.

7. Diphtheria, pertussis, typhoid fever and dysentery.

8. There has been no unusual fatality attending any of the prevailing diseases.

9. A slight epidemic of scarlet fever existed during the fall. A case was imported into the city, and from this spread chiefly among the children attending a private school; cases all of mild character.

10. The thickly settled portions of the city, particularly along the harbor front. The unhealthiness is caused chiefly by defective drainage and bad water.

11. No improvement has been made during the past year in relation to better drainage. The removal of excretæ, house refuse and garbage is conducted in a manner detrimental to the public health, and the city authorities allow the refuse and garbage from the houses to be gathered in the same cart with the ashes and to be dumped on the harbor front to fill in for dockage.

12. During the dry season of the summer dysentery prevailed to a greater extent than at any time during the previous five years. The cases were generally very severe and of long duration, but not very fatal.

13. The importance of having better sanitary conditions for our city is being felt by the community, and the public sentiment is in favor of establishing a board of health. The inefficient manner in which the health ordinances are enforced, and the countenancing by the city officials of certain nuisances, has excited a lively interest among the citizens of Newport, as shown by the local papers, and created a demand for the establishment of a board of health for the city.

F. H. Rankin.

PROVIDENCE COUNTY.

1. Pascoag, Burrillville.

2. The general amount of sickness, of all kinds, in this circuit in 1880 has been very large, as compared with ordinary years. Seventy-five per cent. larger at least, and probably nearer 100.

3. Diphtheria prevailed very extensively during the autumn months, and in the northern part of the town was very fatal.

4. No endemic diseases have been prevalent in my circuit during the year 1880.

6. The disease of common occurrence, not usually endemic nor contagious, that has had an unusually large prevalence in this town during the year is typhoid fever.

7. No contagious or infectious diseases have prevailed to any extent in this town without becoming epidemic.

8. Diphtheria has been attended with an unusual fatality during the latter months of the year.

10. The northern part of the town was very unhealthy during the autumn on account of the low state of water.

11. No changes have been made, during the year 1880, in my locality, or any other locality to my knowledge. in my circuit, in relation to better drainage, more complete removal of excretæ, house refuse, garbage, &c., and I know of no new measures, public or private adopted, to promote better sanitary conditions.

12. I think that the prolonged drouth of the last half of the year had very great influence in the production and promotion of diseases.

13. I am not sure of any advance in the public sentiment of my circuit in regard to the importance of sanitary surroundings; or any increased interest in questions appertaining to means of preventing diseases.

H. J. Bruce.

1. Harrisville, Burrillville.

2. The general amount of sickness, of all kinds, in this town in 1880, as compared with ordinary years, has been estimated at 100 per cent. or more greater.

3. We have had an epidemic of diphtheria; has prevailed for the past three or four months; still prevails, though to a modified extent; most extensive and fatal in the northern portion of the town, in and about Pascoag and Harrisville.

4. No endemic diseases prevalent in my circuit during the year 1880.

6. No diseases of common occurrence, not strictly endemic nor contagious, have had an unusually large prevalence in my circuit during the year.

7. The contagious or infectious diseases that have prevailed in my circuit, without becoming epidemic, are scarlet fever and measles.

8. Diphtheritic cases have been attended with an unusual fatality.

9. Two years ago we had a slight epidemic of scarlet fever in which the contagion was traced directly to the Quaker school at Providence. This year the first case of diphtheria I saw, and in fact the *first case that appeared in the town*, as I am able to learn, was traced directly to a fatal case in Olneyville. The young girl attended the funeral of a child who died of diphtheria at Olneyville, returned home, and in a few days was herself attacked by the disease. Soon neighbors' children began to suffer from the complaint, and in a few weeks the disease became general in that part of the town.

10. There are no localities in my circuit that I consider peculiarly unhealthy in comparison with others.

11. No movements of town authorities or otherwise that I know of have been made, during the year 1880, in this town in relation to more complete removal of excretæ, house refuse, &c., or to promote better sanitary conditions.

12. I think the prolonged drouth of the last half of the year 1880 must have had some influence in the production or promotion of diseases. Just what effect would be impossible to state; but all acute diseases have been unusually severe and fatal.

13. If there is any advance in the public sentiment in regard to the importance of sanitary surroundings, or any increased interest in promoting individual and general health, it has not been made apparent. Burrillville has made no advance in this or any other direction. Any improvement that involves the outlay of a single dollar, even if of the greatest public good, would not be entertained for a moment.

14. I know of no localities in my circuit, which, without being generally unhealthy, are particularly promotive of pulmonary consumption, gravel, calculus or malarial diseases.

E. V. Granger.

1. Valley Falls and parts of Cumberland, Lincoln and Pawtucket.

2. The general amount of sickness, of all kinds, in my circuit in 1880, as compared with ordinary years, has been about the same—perhaps a little less.

3. No epidemics have prevailed in this neighborhood during the year.

4. No endemic diseases have been prevalent during the year.

6. The diseases of common occurrence, not strictly endemic nor contagious, that have had an unusually large prevalence in this section during the year are diarrhœa and bronchitis.

7. The contagious or infectious diseases that have prevailed without becoming epidemic are scarlet fever, measles and hooping cough.

8. There has been a large fatality among the aged and those affected with general debility.

10. I have no knowledge of any localities that I consider peculiarly unhealthy. Valley Falls is salubrious in all its parts.

11. No changes have been made, during the year 1880, in any locality in this section in relation to better drainage or more complete removal of excretæ, house refuse, &c., and no new measures of consequence, public or private adopted, to promote better sanitary conditions.

12. In regard to the influence the prolonged drouth of the last half of the year had in the production or promotion of diseases, I can only say that there was an unusually small amount of typhoid fever last fall, which I thought might be due to the severe drouth. Sickness generally diminished.

13. There has been no marked degree of interest or change of sentiment per ceived in regard to sanitary improvement or any means of preventing disease.

14. In regard to localities in this section not generally unhealthy, which seem to be promotive of pulmonary consumption, gravel, calculus or malarial diseases, I may say that I know of no localities where the diseases mentioned, or any other diseases, are unusually prevalent. The cases that have occurred here in the last year have only presented the usual characteristics of ordinary sporadic cases generally met with.

G. B. Haines.

1. Foster.

2. The general amount of sickness, of all kinds, in this circuit in 1880, as compared with ordinary years, has been about one-third less.

3. No epidemics have prevailed in this town during the year 1880.

4. No endemic diseases have been prevalent in my circuit during the year.

6. No diseases of common occurrence, not strictly endemic nor contagious, have had an unusually large prevalence in this town during the year, unless mild diarrhœa be excepted.

7. The contagious or infectious diseases that have prevailed in my circuit without becoming epidemic are scarlet fever, typhoid fever and diphtheria.

8. No diseases have been attended with an unusual fatality.

9. Two cases of scarlet fever occurred in one house, with sore throat; very severe; both lived. Free intercourse was had, and no others had it. I had a very severe case of scarlet fever and severe ulcerations of the throat; *very sick and doubtful case.* By mistake the nurse gave a teaspoonful of a strong liniment composed of camphor, aqua ammonia strong and thirty-five parts of alcohol, without water, milk or other liquid. Result: vomited in a few minutes and cleared the throat completely; thirsty the next twenty-four hours; appetite the next day good; the nose discharged bloody matter for a month; two cases in this family; kept *solitary;* spread not. Five cases in one family; one death; spread not.

10. There are no localities in my circuit that I consider peculiarly unhealthy.

11. No changes have been made, during the year 1880, in this town to promote better sanitary conditions.

12. I have not seen any evidence of any influence the prolonged drouth of the last half of the year had in the production or promotion of diseases.

13. There has been no advance in the public sentiment of this town that I know of in regard to the importance of sanitary surroundings, or means of preventing diseases and promoting general health.

14. There are no localities that I know of that are promotive of pulmonary consumption, gravel, calculus, malarial or any other diseases more than common.

M. P. Arnold.

1. Lincoln and Pawtucket.

2. The general amount of sickness, of all kinds, in this section in 1880, as compared with ordinary years, has been less.

3. No epidemics except toward the close of the year. We had measles of a light type continuing into 1881. Some scarlet fever and diptheria all through the year, but not epidemic.

4. No endemic diseases have been prevalent during the year 1880.

6. Among the diseases of common occurrence, not strictly endemic nor contagious which have had large prevalence in this section during the year, may be named influenza.

7. The contagious or infectious diseases that have prevailed without becoming epidemic are scarlet fever and diphtheria.

8. No diseases have been attended with an unusual fatality.

9. I don't believe in the contagion of scarlet fever or typhoid, and have doubts of diphtheria.

11. No changes have been made to my knowledge by the authorities during the year 1880 in relation to better drainage, more complete removal of excretæ, house refuse, garbage, &c., or any other new measures, public or private adopted, to promote better sanitary conditions.

12. In regard to the influence the prolonged drouth of the middle or last half of the year 1880 had in the production or promotion of diseases, I know of no effect unless to lesson the tendency. The drouth commenced in April and May, as we had no spring rains in this section.

13. The *advance* in public sentiment in regard to the importance of sanitary surroundings, or increased interest in questions appertaining to means of preventing diseases and promoting general health have not been very noticeable.

14 I have no knowledge of any localities not considered generally unhealthy that are particularly promotive of pulmonary consumption, gravel, calculus, malarial or any other diseases.

A. A. Mann.

1. Johnston, North Providence and Smithfield.

2. The general amount of sickness, of all kinds, in this circuit in 1880, as

compared with ordinary years, has been about an average—if anything a little less.

3. Scarlet fever prevailed in the spring for a period of about two months. The type was severe, many of the cases being affected with alarming throat symptoms, in Manton, Lymanville, Centredale and Georgiaville.

4. No endemic diseases have been prevalent in this circuit during the year 1880.

6. No diseases of common occurrence, not strictly endemic nor contagious, have had an unusually large prevalence during the year.

7. The contagious or infectious diseases that have prevailed in this circuit without becoming epidemic are diphtheria and typhoid fever.

8. No diseases have been attended with an unusual fatality.

9. In January was called to see a child aged four years. No other family is living within a quarter of a mile of the house. He was suffering from articular rheumatism. About two weeks before, the child was suddenly seized with high fever and vomiting. This was followed by an extensive rash, or, as the mother called it, "broke out all over." Only slight evidences of desquamation could be found. As the articular pains subsided extensive œdema of the face developed, the urine became scanty, high-colored and full of albumen; without doubt a case of scarlatina, followed by rheumatism and dropsy. About this time a younger brother, eighteen months old, who had not been away from the house, was seized with high fever and vomiting. He had the inflamed and swollen throat, strawberry tongue, but no rash. He rapidly went into a state of collapse, and succumbed in forty hours.

10. There are no localities in this section peculiarly unhealthy.

11. In regard to changes that have been made, during the year 1880, in this section, in relation to better drainage, or more complete removal of excretæ, garbage, &c., and other measures to promote better sanitary conditions, we think we have seen greater cleanliness on the part of the people about their homes. The introduction of Pawtuxet water into Dyerville is an improvement. Some of the wells were so situated as to receive drainage from the houses.

12. In relation to the influence the prolonged drouth of the last half of the year had in the production or promotion of diseases, it may be said that, contrary to expectation, no influence could be observed. It looked at one time as if we would have an epidemic of typhoid, but none occurred.

13. There seems to have been some advance in the public sentiment in regard to the importance of sanitary surroundings and means of preventing diseases.

14. As to localities in this section which are evidently promotive of pulmonary consumption, gravel, calculus, malarial or any other diseases, we have no reason for thinking any such locality exists.

J. C. Budlong,
C. A. Barnard.

1. Olneyville, Johnston, parts of Cranston and North Providence.

2. The general amount of sickness, of all kinds, in 1880, as compared with ordinary years, has been about one-fourth larger.

3. The epidemics and contagious diseases that have prevailed in this circuit during the year 1880 are as follows: Pertussis, mild, from January to August, Olneyville. Diphtheria, average to severe about every month; severe October to December. Scarlet fever, average to severe from September to December 31st, Merino and Morgan Mills. Measles, mild, May to October, Silver Lake, Simmonsville. Influenza, severe, October to December; general about town. Rotheln, mild, October to December, Olneyville.

4. The endemic diseases that have been prevalent in this circuit during the year 1880 are dysentery, Simmonsville. Typhoid fever generally confined to the manufacturing districts, and Irish people. Rheumatism is increasing in the swamp district back of Olneyville.

5. The probable causes of the occurrence as endemics are, I think, as follows: Typhoid, caused probably by imperfect drainage and carelessness as to cleanliness; certain districts on Mt. Pleasant are fruitful of the disease. Rheumatism, in low, marshy and damp settlements south of village proper.

6. The diseases of common occurrence, not strictly endemic nor contagious, that have had an unusually large prevalence in this circuit during the year are rheumatism, not strictly endemic; see above; lung diseases, apoplexy, heart disease, cholera infantum.

7. The contagious or infectious diseases that have prevailed in this circuit without becoming epidemic are mumps, here and there a case; chicken pox, few cases; membranous croup.

8. The diseases that have been attended with an unusual fatality are cholera infantum and diphtheria.

9. The following circumstances have occurred within my observation that seemed to indicate that scarlet fever had been taken or communicated from one person to another: Case at Merino—A young married lady from East Greenwich visited a relative at Merino about the middle of December, where there was a child sick with scarlet fever; very light. She stayed one night and went directly home, and was to return again when the child recovered. She had two children herself, but they were left at home the first visit. In about ten days she returned, bringing her little girl with her, and the same night this child was taken sick, showing unmistakable signs of the scarlet fever. Next day eruption decided the same. Hence we suppose, as the mother knew of no cases at home, and the time of the first and second visit, that she carried the disease home with her.

10. The localities in this circuit I consider unusually unhealthy are as follows: The "swamp district," just back of the village, very damp and wet: typhoid, diphtheria, rheumatism, cholera infantum. The Riverside district: diphtheria, croup. The Merino district: all but the first are owing to carelessness as to clean habits.

11. The main sewer pipe in the principal streets has been changed for a larger pipe, and the surplus water is now entirely flowed out. The swamp lands have

been filled in in some places with sand. The Riverside authorities have posted orders for better care of tenements. No public orders have been issued.

12. In regard to the prolonged drouth of the last half of the year 1880, I think it had much to do in promoting lung and enteric diseases; besides it gave an impulse to influenza.

13. The people have, I think, considered the subject more than before, and I believe they are doing so every year. I think they are beginning to wake up to the importance of healthy surroundings.

14. The locality which is considered generally unhealthy, and in my opinion promotive of pulmonary consumption, is the swamp district. Had six cases of consumption there, and only one outside, in same area and population.

G. R. FISHER.

1. Pawtucket and Lincoln.

2. The general amount of sickness, of all kinds, in this section in 1880, as compared with ordinary years, has been about an average.

3. Scarlet fever has prevailed to some extent as an epidemic.

4. No endemic diseases have been prevalent in this circuit during the year 1880.

6. No diseases of common occurrence, not strictly endemic nor contagious, have had an unusually large prevalence during the year.

7. No contagious or infectious diseases have prevailed without becoming epidemic, unless exception be made of diphtheria and measles.

8. No disease has been attended with an unusual fatality, except scarlet fever.

9. Diphtheria and scarlet fever seem contagious, but not more so than usual, or in any way different.

10. There are no localities in my circuit that I consider peculiarly unhealthy.

11. No unusual changes have been made, during the year, in this locality in relation to better drainage, more complete removal of excretæ, house refuse, garbage, &c., or any other new measures, public or private adopted, to promote better sanitary conditions, except in extension of water supply.

12. As to the influence of the prolonged drouth of the last half of the year in the production or promotion of diseases, I know of none except that it probably lessened typhoid fever.

13. I think there has been no advance in the public sentiment of this place in regard to the importance of sanitary surroundings nor any increased interest in questions appertaining to means of preventing diseases.

14. As to any localities particularly promotive of pulmonary consumption, gravel, calculus, malarial or any other diseases, we may infer that the east side of the river, in Pawtucket, may be more unhealthy, from the fact that it has a wet soil. Cannot say that such is the fact.

J. O. WHITNEY.

1. Pawtucket.

2. The general amount of sickness, of all kinds, in this vicinity in 1880, as compared with ordinary years, was not quite as much as usual, or perhaps an average. No reliable estimate.

3. Measles have been very prevalent; of ordinary severity, and not confined to any particular localities.

4. No endemic diseases have been prevalent during the year 1880.

6. No diseases of common occurrence, not strictly endemic nor contagious, have had an unusually large prevalence during the year.

7. No contagious or infectious diseases have prevailed, without becoming epidemic, except scarlet fever.

8. No diseases have been attended with unusual fatality.

10. There are several localities, scattered over town, particularly caused by filth and defective drainage.

11. No changes have been made during the year 1880, in this vicinity, in relation to better drainage, or more complete removal of excretæ, house refuse, nor any other measures, public or private adopted, to promote better sanitary conditions, except completion of water works.

12. I know of no effect that the prolonged drouth of the last half of the year had in the production or promotion of diseases, unless by increasing diseases of a malarial type

13. I think there is some advance in the public sentiment of this section in regard to the importance of sanitary surroundings, and some increased interest in questions appertaining to means of preventing diseases, and promoting general health.

14. There are a few localities in this section which I think may be promotive of pulmonary consumption and malarial diseases, especially where the location is low and moist, contiguous to imperfectly drained marshes.

G. H. Stanley.

1. Northern half of Scituate, and parts of Johnston, Smithfield, Glocester and Foster.

2. The general amount of sickness, of all kinds, in this circuit in 1880, as compared with the last two years, has been at least ten per cent. increase.

3. Typhoid fever in No. Scituate and vicinity. Hooping cough commenced in October, and prevailed during the remainder of the year. It affected chiefly the residents of No. Scituate and Saundersville, and did not spread into surrounding territory.

4. No cases of endemic disease are known to have occurred during the year. In the Mill Village, at No. Scituate, there were at one period a few cases (two or three only) of fever possessing malarial characteristics, and which succumbed promptly to large doses of quinine, after being unaffected by other remedies.

6. The diseases of common occurrence, not strictly endemic nor contagious, that had an unusually large prevalence in my circuit during the year were cholera infantum, dysentery and diarrhœa. Cholera morbus was exceptionally prevalent during the hot months.

7. The contagious or infectious diseases that prevailed in my circuit, without becoming epidemic, were diptheria and scarlet fever.

8. No diseases have been attended with an unusual fatality.

10. I know of no locality in my circuit which from natural causes I should consider unhealthy. The drainage in the New Pond Factory Village was very bad last season, and in my opinion contributed largely to the very unusual prevalence of typhoid fever in that locality.

11. No changes of consequence have been made during the year 1880 in this locality in relation to better drainage, or more complete removal of excretæ, &c., and no other measures, to my knowledge, public or private adopted, to promote better sanitary conditions.

12. Did not discover any particular influences which could properly be ascribed to drouth, unless the very low state of wells, assisted by poor drainage, in the production of typhoid fever. Possibly the subsidence of soil water gave the opportunity for greater chemical change, and decomposition of vegetable matter in the soil, and thus contributed to low forms of disease.

13. Do not think there has been much advance in the public sentiment in regard to the importance of sanitary surroundings, or increased interest in questions appertaining to means of preventing diseases, and promoting individual and general health.

14. No localities are known to me which, without being considered generally unhealthy, are promotive of pulmonary consumption, gravel, calculus, malarial or any other diseases.

W. J. Smith.

1. Woonsocket, Cumberland and North Smithfield.

2. There has been about the average amount of sickness, taking the whole year together.

3. January to March (last of March), influenza—since about that time measles. Scattering cases of scarlet fever and of diphtheria have occurred during the whole year, but they did not become epidemic.

4. No endemic diseases have been prevalent in this circuit during the year 1880.

6. No diseases of common occurrence, not strictly endemic nor contagious, have had an unusually large prevalence during the year.

7. The contagious or infectious diseases that have prevailed in this circuit, without becoming epidemic, are scarlet fever and diphtheria

8. Scarlet fever has, especially during the first half of the year, been unusually fatal.

9. I have no cases that indicate such communication to the exclusion of the hypothesis of common origin.

10. I may remark, in regard to localities in my circuit peculiarly unhealthy, that I consider the Hamlet to be favorable to the development of phthisis, and the Social village also, but in a less degree

11. No changes to any extent have been made, during the year 1880, in this vicinity in relation to better drainage, more complete removal of excretæ, &c.

12. Whether the prolonged drouth of the last half of the year had any influence in the production or promotion of diseases, I have not been able to form any decided opinion.

13. There appears to me to be more general interest in, and knowledge of, sanitary matters gradually growing in this community.

14. I am not aware of any localities in this vicinity peculiarly promotive of pulmonary consumption, gravel, calculus, malarial or any other diseases, except as stated above.

D. M. Edwards.

WASHINGTON COUNTY.

1. Hopkinton, Richmond and part of Exeter.

2. The general amount of sickness, of all kinds, in my circuit in 1880, as compared with ordinary years, has been about an average.

3. Scarlet fever has been epidemic in this section for the whole year. It has been of a mild grade, although considerable secondary trouble has followed it.

4. No endemic diseases have been prevalent in my circuit during the year.

6. No diseases of common occurrence, not strictly endemic nor contagious, have had an unusually large prevalence during the year.

7. No contagious or infectious diseases have prevailed in this circuit without becoming epidemic, except hooping cough.

8. No diseases have been attended with an unusual fatality, but many old people have died.

9. I had six cases of typhoid fever in one family, residing in the country, a fourth of a mile from any other neighbor. The house was situated upon rising ground, and surroundings healthy so far as the buildings were concerned. It might be attributed to the low water and exposed surface of a reservoir one-half of a mile away. *All recovered.*

10. There are no localities in this circuit that I consider peculiarly unhealthy.

11. No changes have been made, during the year 1880, in this vicinity in relation to better drainage, or removal of excretæ, house refuse, &c., and no new measures, public or private adopted, to promote better sanitary conditions, so far as I know.

12. In regard to the influence of the prolonged drouth of the year 1880 in the production or promotion of diseases, I think, as a rule, there was less sickness, of all kinds, than usual.

13. I have observed no advance in the public sentiment of this section in regard to the importance of sanitary surroundings, or any increased interest in means of preventing diseases and promoting health.

14 Do not know of any localities in this circuit which, without being considered generally unhealthy, are promotive of pulmonary consumption, gravel, calculus, malarial or any other diseases.

E. P. Clark.

1. Hopkinton, northern part of Westerly, northern part of Charlestown, and southern part of Richmond.

2. The amount of sickness has been greater, I should think, by twenty per cent.

3. We have had no epidemics during the past year, in a strict sense of the word, unless scarlet fever may have reached that point at one time.

4. There was what might be called a slight endemic of typhoid fever in the northern part of the town of Hopkinton during August and September—most cases occurring in high and dry localities. There was also a good many cases of dysentery in the same locality at the same time.

5. Most cases of typhoid, if not all, were traceable to bad drainage.

6. The diseases of common occurrence, not strictly endemic nor contagious, that have had an unusually large prevalence in this circuit during the year, are typhoid fever, catarrhal troubles of intestines and pulmonary diseases.

7. The contagious or infectious diseases that have prevailed in my circuit, without becoming epidemic, are typhoid, scarlet fever and diphtheria.

8. No diseases have been attended with an unusual fatality.

10. The village of Niantic I consider to be, and is very unhealthy, on account of bad drainage; also in the way cess-pools are located, and out-houses many times in close proximity to the wells, and in some instances even allowing a surface drainage into the well.

11. No changes have been made, during the year 1880, in this vicinity to my knowledge, in relation to better drainage or removal of excretæ, house refuse, &c., or any other measures, public or private adopted, to promote better sanitary conditions.

12. In regard to the influence the prolonged drouth of the last half of the year 1880 had in the production or promotion of diseases, it was within my observation that there was a marked increase of infectious diseases following the first heavy rains, viz.: typhoid fever and dysentery. The fault was probably in the water, as many of the wells were very low, and some dry; after the first heavy rains we had, wells that had been dry for weeks contained three feet of water within twenty-four hours.

13. Very little advance, if any, in the public sentiment in this section in regard to the importance of sanitary surroundings, or interest in means of pre venting diseases and promoting health.

14. Do not know of any localities in this circuit which, without being generally unhealthy, are promotive of pulmonary consumption, gravel, calculus, malarial or any other diseases, although there has been a marked increase of pulmonary diseases during the past year in my circuit, especially consumption. It has not been confined to any one locality.

A. B. Briggs.

1. South Kingstown.

2. The general amount of sickness, of all kinds, in this circuit in 1880, as compared with ordinary years, is about twenty-five per cent. less.

3. No epidemics have prevailed to any extent during the year 1880. A very few isolated cases of typhoid fever in the fall of 1880, and a few cases of diphtheria, confined to the Tower Hill locality, and one family at Narragansett Pier.

4. No endemic diseases have been prevalent in this circuit during the year 1880.

6. No diseases of common occurrence, not strictly endemic nor contagious, have had an unusually large prevalence during the year.

7. The contagious or infectious diseases that have prevailed in this circuit, without becoming epidemic, are scarlet fever and diphtheria.

8. No diseases have been attended with an unusual fatality.

9. Scarlet fever I believe to be contagious, both from contact and infection. Diphtheria and typhoid fever have, in my experience, been endemic, confined in the main to the households where they originated. I have never seen either prevail as an epidemic. Scarlet fever, I certainly think, I have seen epidemic in several instances.

10. There are no localities in this circuit peculiarly unhealthy.

11. No important changes have been made during the year 1880, by the authorities or otherwise, in this circuit in relation to better drainage or more complete removal of excretæ, garbage, &c. I know of no new measures, public or private adopted, to promote better sanitary conditions.

12. I have not noticed any influence that the prolonged drouth of the last half of the year had in the production or promotion of diseases.

13. I know of no advance in the public sentiment of my circuit in regard to the importance of sanitary surroundings; or increased interest in means of preventing diseases, and promoting general health. The situation and surroundings of this entire town are conducive to health and longevity. Infectious diseases are generally very benign in character and manageable in their treatment.

14. There are no localities in my circuit which are peculiarly promotive of pulmonary consumption, gravel, calculus, malarial or any other diseases. Some of the grounds about Narragansett Pier are naturally wet and without suitable drainage, and they are very thickly inhabited for two months of the year. Those who come to them are generally in good health, and do not seem to suffer. The permanent residents do not seem to be affected by it; why they are not, I cannot say.

C. E. Maryott.

1. Charlestown and Richmond.

2. The general amount of sickness, of all kinds, in my circuit in 1880, as compared with ordinary years, was twenty five per cent. more, credited to the last half of the year.

3. No epidemics of contagious diseases have prevailed in my circuit during the year 1880. Catarrhal influenza has been prevalent from early autumn throughout the year, of rather more than average severity, and very general.

4. Remittent fever has prevailed to some extent throughout my circuit, of average severity, but especially in the villages of Shannock and Kenyon's Mills.

5. In my opinion, the probable cause, or causes of the endemics described are clearly of a miasmatic origin. These two villages are the first below "Great Swamp," so called, at the head of Pawcatuck River.

6. No diseases of common occurrence, not strictly endemic nor contagious, have had an unusually large prevalence during the year.

7. No contagious or infectious diseases have prevailed in my circuit without becoming epidemic.

8. No diseases have been attended with an unusual fatality.

9. From January 1 to December 14, 1873, there had not been a case of scarlet fever in my circuit. December 14, 1873, I was called to see a little girl about two years old, living at Kenyon's Mills, two miles distant from my place of business. Found her sick with scarlet fever, which in a short time assumed the malignant form. On the 16th, another child of the same family, aged four years, was taken with the same disease. The child first taken died December 25, and the second child died the 29th. December 23, one of my own children, aged five years, and December 25, another child, one year old, were taken sick with same disease. One died January 4, and the other January 6. January 10, a young lady, aged 23, living with Mrs. G., who had been a very frequent visitor and attendant to and upon my children during their sickness, and who lived on the same street, about one-eighth of a mile distant, was taken sick with the same disease, and died the 24th. The young lady had never visited my house. These were the only cases that occurred. I have no doubt that I communicated the disease from the first cases to my own children, and the neighbor visitor, Mrs. G., to the young lady inmate of her family. In the autumn of 1869, typhoid fever appeared at Kenyon's Mills, a small manufacturing village of about 200 inhabitants, situated upon Pawcatuck River, about two miles below Great Pond and Great Swamp. The pond is very shallow, averaging not over four feet in depth, and produces a large growth of water rushes. The swamp is partially submerged with water in winter, spring and early summer, and becomes dry in late summer and early autumn, under ordinary circumstances. It produces a very rank growth of vegetation. The pond and swamp cover an area of five or six thousand square acres. The village is situated on the north bank of the river, with a street running parallel to it, and a row of tenement and boarding houses on each side of street. There are two wells of water on the bank of river in rear of houses, and one on the opposite side of street, well removed back. There were seven original cases of fever, and in every instance among those who had habitually used water from the

wells on the bank of river. Five of these cases were non-residents of the village, and went to their respective and separate homes, when compelled to leave work in first stage of disease. In every instance but one, other cases of fever occurred in the families where were the original sick ones. In an aggregate of about twenty-five cases of typhoid fever in my circuit that fall, every one was traceable to the seven original cases. Three proved fatal.

10. There are some localities in my circuit that I consider peculiarly unhealthy. The territory adjacent to Pawcatuck River, from the village of Shannock to its source in Worden's Pond, and the Great Swamp. Typhoid and remittent fevers and diphtheria. Miasmatic emanations, are doubtless among the causes.

11. Considerable changes have been made during the year 1880 by A. Carmichael & Co. at the Shannock Mills, in relation to better drainage and more complete removal of excretæ, house refuse, garbage, &c. Do not know of any other measures of consequence, public or private adopted, to promote better sanitary conditions.

12. The influence that the prolonged drouth of the last half of the year had in the production or promotion of diseases was, I think, principally miasmatic, caused by low stages of water in swamps, reservoirs, and streams, impure drinking water, producing fevers and diseases of mucus membranes.

13. No perceptible advance in the public sentiment of this circuit in regard to the importance of sanitary surroundings; or means of preventing diseases, and promoting health. A few individuals are awake to sanitary requirements.

14. Answered under No. 10.

A. A. Saunders.

1. Westerly.

2. The general amount of sickness in my circuit in 1880, as compared with ordinary years, was about an average, taken all together.

3. No epidemics have prevailed in this town during the year 1880. Diphtheria has been quite prevalent in this community since early in the fall. I do not, however, consider it has reached an epidemic prevalence.

4. During part of July, August and September, a mild form of malaria occurred in one part of my circuit. The locality was surrounded by low, wet, marshy lands, with quite a luxuriant growth of vegetation. Malaria was almost unheard of before in this locality.

5. In my opinion, the probable cause of the endemic described was the same poison which produces malaria elsewhere.

6. In regard to diseases of common occurrence, not strictly endemic nor contagious, there were more cases of dysentery last summer than usual.

7. The contagious or infectious diseases that prevailed in my circuit, without becoming epidemic, during the year, were diphtheria and scarlet fever.

8. No diseases have been attended with an unusual fatality, unless it may be

scarlet fever. We have not had many cases, but what we have had have proved unusually fatal.

9. From careful observation during a practice of ten years, I am satisfied of the contagiousness of scarlet fever, diphtheria and typhoid fever. In my opinion, the contagiousness of scarlet fever is confined more to the age of childhood; but no age is exempt from the ravages of diphtheria. In a country practice, we have cases of sporadic typhoid fever, which do not seem to be very contagious.

10. The only localities in my circuit that I consider peculiarly unhealthy are described under question No. 4.

11. The drainage of Westerly has been improved during the past year to some extent by grading of streets, laying sewer pipes, &c. Several of our real estate owners have adopted better methods of disposing of house refuse, care of sink drains, cesspools, &c.

12. If the prolonged drouth of the last half of the year had any detrimental influence in the production of diseases, it was only manifest by an increase of cases of dysentery and diphtheria. During the six months, taken together, I think we had a less amount of sickness than is usual for us. Our loss in dysentery and diphtheria was more than equalled by our gain in not having as many cases of typhoid fever and remittent fever as usual.

13. I think the better class of our community are advancing as to the importance of their sanitary surroundings. They are asking what they should do. The spirit of inquiry is increasing. Daily observations are my reasons for the above belief.

14. There are no localities in my circuit which are peculiarly promotive of pulmonary consumption, gravel, calculus, malarial or any other diseases, except the one locality where malaria seemed to develope itself last summer, and that for the first time.

H. N. CRANDALL.

REPORTS FROM TOWNS.

At the January session of the General Assembly in 1880, the following section of chapter 794 was enacted in addition to chapter 680 of the Public Laws:

CHAPTER 794.

SECTION 3. The Secretary of the said Board shall make inquiry from time to time, of the clerks of town and local boards of health, in relation to the prevalence of any disease, or knowledge of any known or generally believed source of disease, or causes of general ill-health, and also in relation to the proceedings of the said boards of health, in respect to acts for the promotion and protection of the public health, and also in relation to diseases among domestic animals, in their several towns and localities, respectively; and the said clerks of town and local boards of health, shall give such information, in reply to said inquiries, of such facts and circumstances as have come to their knowledge.

The following circular was therefore sent to the town clerks of the several towns, acting as clerks of boards of health:

CIRCULAR I.

OFFICE OF SECRETARY OF THE STATE BOARD OF HEALTH.

PROVIDENCE, Jan. 1, 1881.

To the Town Clerk of the Town of ——:

At the beginning of the year 1880 a circular was sent to the clerks of local boards of health (town councils or boards of aldermen, unless special boards are appointed,) in all the towns of the State, making various inquiries in regard to the sanitary condition of, and measures taken for the improvement of the same, in their several towns and localities, during the preceding year.

In compliance with section 3 of chapter 794, of the Public Laws, it is now obligatory and quite desirable that reports should again be made by persons holding the same official positions, in regard to the same general subjects of inquiry.

The following questions are therefore presented:

1. What diseases have prevailed to an unusually large extent in your town or district during the past year? If any, please give names; first, that affecting (to the best of your knowledge) the largest number of persons; second, the next largest, and so on. Also the localities where they occurred, and the time of the year.

2. Are there any localities in your town or district which are generally believed to foster any one disease more than another? For instance, consumption, typhoid fever, malarial disease, &c. If any, name the localities and the diseases.

3. Are there any localities which are believed to be productive of general ill-health, without resulting in special or definite forms of disease? If so, name the locality or localities.

4. Has any widely spread or largely fatal disease, contagious or otherwise, occurred among domestic animals in your town or district, during the year 1880? If any, give name or names, locality and time of occurrence.

5. What regulations have been adopted, or work of a public or private nature, contemplated, commenced or completed in 1880, by the consent, or under the direction of the town council of your town, or any legally authorized health officer or board of health in the town, in relation to the promotion and protection of the public health?

An early reply is solicited.

Respectfully,

CHAS. H. FISHER, *Secretary.*

REPORTS FROM TOWN CLERKS

In relation to prevalence of disease, and acts for the promotion and protection of the public health.

BRISTOL COUNTY.

BRISTOL.

1. The diseases that have prevailed to an unusually large extent in this town during the past year are dysentery during the summer, scarlatina during the whole year. Both diseases were for the most confined to tenement houses in crowded localities.

2. There are several localities of the class that foster disease occupied by poor tenants, where the drainage is exceedingly bad, which proved last summer to be hot beds of dysentery and typhoid.

3. The localities that are productive of general ill-health are so scattered that it would be difficult to describe them; but most of them are in or near the centre of the compact part of the town.

4. No largely fatal disease, contagious or otherwise, has occurred among domestic animals in this town during the year.

5. In regard to regulations adopted, or work of a public nature contemplated in 1880 in relation to the promotion and protection of the public health, it may be said that orders have been passed by the town council for the cleansing of several localities in the town and health officers appointed annually.

PETER GLADDING.

WARREN.

1. I do not know that any disease prevailed to an unusually large extent in this town during the past year.

2. I do not know of any localities in this town which are generally believed to foster consumption, typhoid fever, or malarial disease.

3. No localities which I know to be productive of general ill-health.

4. No largely fatal disease has occurred among domestic animals in this town during the year 1880.

5. No special regulations have been adopted, or work of a public nature commenced in 1880, under the direction of the town council or any health officer, in relation to the promotion and protection of the public health.

H. H. LUTHER.

BARRINGTON.

1. The disease that has prevailed to an unusually large extent in this town during the past year is fever and ague, which has never been prevalent here before. It occurred during August, September and October, and principally on the premises of the Brick Co.

2. No localities in town which are generally believed to foster any one disease more than another, unless the brick yards should prove to be such.

3. No localities are known which are believed to be productive of general ill-health.

4. No serious disease, contagious or otherwise, has occurred among domestic animals in this town during the year to my knowledge.

5. No regulations have been adopted by the town council in relation to the promotion and protection of the public health.

M. H. WOOD.

KENT COUNTY.

COVENTRY.

1. No diseases have prevailed to an unusually large extent in this town during the past year to my knowledge.

2. I do not know of any localities in this town which are generally believed to foster any one disease more than another.

3. No localities which are believed to be productive of general ill-health.

4. No largely fatal disease has occurred among domestic animals that I have heard of.

5. No regulations have been adopted by the town council, or any health officer in the town, in relation to the promotion and protection of the public health.

S. W. GRIFFIN.

EAST GREENWICH.

1. No disease has prevailed to an unusual extent to my knowledge during the year.

2. I do not think there are any localities in this town which are generally believed to foster any one disease more than another.

3. There are no localities that I have knowledge of which are believed to be productive of general ill health.

4. There has been no largely fatal disease, nor any contagious disease, that has occurred among domestic animals in this town during the year 1880, unless the epizootic be mentioned.

5. No regulations have been adopted, or work of a public nature commenced in 1880, by or under the direction of the town council, in relation to the promotion and protection of the public health.

EDWARD STANHOPE.

WEST GREENWICH.

1. I think that the disease affecting the largest number of persons in this town for the past year has been scarlet fever, principally in the central and eastern parts of the town, in the autumn and early part of winter. As to the second most prevalent disease I do not know.

2. There are no localities in this town which are generally believed to foster any one disease more than another.

3. I know of no localities which are believed to be productive of general ill-health.

4. No widely spread or largely fatal disease, contagious or otherwise, has occurred among domestic animals in this town during the year to my knowledge.

5. No regulations have been adopted, or work of a public nature commenced, by or under the direction of the town council, in relation to the promotion and protection of the public health.

WM. N. SWEET.

WARWICK.

1. No diseases have prevailed to an unusually large extent in this town to my knowledge during the past year.

2. I have no knowledge of any localities in the town which are generally believed to foster any one disease more than another.

3. I do not think there are any localities which are believed to be productive of general ill-health.

4. I do not know of any widely spread or largely fatal disease, contagious or otherwise, that has occurred among domestic animals in this town during the year 1880.

5. No regulations have been adopted, or work of a public nature commenced, under the direction of the town council of this town, in relation to the promotion and protection of the public health.

B. A. ANDREWS.

NEWPORT COUNTY.

JAMESTOWN.

1. No diseases have prevailed to an unusually large extent in this town during the past year.

2. There are no localities in the town which are generally believed to foster any one disease more than another.

3. And no localities are believed to be productive of general ill health.

4. No widely spread or largely fatal disease, contagious or otherwise, has occurred among domestic animals in the town during the year.

5. No regulations have been adopted, or work of a public nature commenced, under the direction of the town council, in relation to the promotion and protection of the public health.

JOHN E. WATSON,
per W. J. W.

LITTLE COMPTON.

1. No one disease has prevailed in this town to any extent. All have been diseases incident to a country town, and all of a mild nature.

2. There are no localities in the town which are generally believed to foster any one disease more than another.

3. Neither are there any localities which are believed to be productive of general ill-health.

4. No widely spread or largely fatal disease, contagious or otherwise, has occurred among domestic animals in this town during the year. A few cases only of cerebro spinal meningitis.

5. No regulations have been adopted, or work of a public nature of any consequence, commenced by or under the direction of the town council of our town, or any health officer, in relation to the promotion and protection of the public health.

I. B. COWEN.

MIDDLETOWN.

1. No disease has prevailed to a large extent in the town of Middletown during the past year, 1880. In November and December, in the Paradise Valley, so-called, near Sachuest Beach, there were a few cases of scarlet fever, but this zymotic disease assumed no virulent character, and most of those attacked with this disease recovered after a brief course of medical treatment.

2. No particular localities, to my knowledge, peculiarly favor the origin of disease. There are few low, marshy districts which engender and diffuse malaria to any great extent.

3. There are no localities which are believed to be productive of general ill-health, so far as I am informed.

4. No largely fatal disease, contagious or otherwise, occurred among domestic animals in this town during the year. Horses, in general, were affected to some

extent by the epizootic disease which raged in October last. This disease was not so severe as when it visited Middletown a few years anterior to 1880.

5. The town council was quite assiduous in endeavors to suppress illegal swine keeping by persons bringing refuse matter from the adjoining city of Newport, and these comprised about all the public measures taken in Middletown, in 1880, for the protection and promotion of the health of its denizens. No provision has been made for vaccination in this town for a number of years.

A. L. Chase.

PORTSMOUTH.

1. No diseases have prevailed to an unusually large extent in this town during the past year.

2. No localities are generally believed to foster any one disease more than another.

3. Neither are there any localities which are believed to be productive of general ill-health.

4. No widely spread or largely fatal disease, contagious or otherwise, has occurred among domestic animals in this town during the year 1880.

5. There have been no regulations adopted, or work of a public nature ordered in 1880, by or under the direction of the town council, in relation to the promotion and protection of the public health

P. B. Chase.

NEWPORT.

1. I do not consider myself competent to answer the first question. Being busy all the time, my opportunity for observation is very limited, and I do not know what diseases are prevailing.

2. There are no localities in this city, to my knowledge, which are generally believed to foster any one disease more than another.

3. I have no knowledge of any localities which are believed to be productive of general ill-health.

4. Am not aware of any widely spread or largely fatal disease, contagious or otherwise, that occurred in domestic animals in this city during the year 1880, and am not in any position to know.

5. In April, 1880, an attempt was inaugurated to remove house offal and swill by a regulated license system, under ordinance passed in 1879. of which you had copies), contracts were made for all the wards. In the 2d and 5th wards great trouble was had from the large hog-pens of the licensed parties which, although placed at the required distance from the line of the compact part of the city, became most horrible nuisances; and much complaint arose from the inefficient

service (especially in the 5th ward, the location of the wealthier residents, the servants being accustomed to sell the house offal in many cases,) in removing the offal. The licenses all expired December 31, and no steps have been taken yet for the coming warm weather. No other sanitary measures have been adopted during 1880, that I remember.

WM. G. STEVENS.

The following ordinances and papers in relation to the promotion of the public health are presented as additional replies to question No. 5:

THE CITY OF NEWPORT.

AN ORDINANCE RELATIVE TO CEMETERY VAULTS AND ENTOMBMENT OF BODIES.

[Passed January 6, 1880.]

It is ordained by the City Council of the City of Newport, as follows:

SECTION 1. Every vault or tomb, built wholly or partially above the surface of the ground and used or designed for the reception of dead bodies in any cemetery or other place in said city, shall be examined and shall be opened by the proprietor thereof, or by the person or persons in charge thereof, for examination by the Mayor or the Inspector of Nuisances or any member of the Board of Aldermen, of said city, or any person designated by said Board, whenever and as often as either of the above-named city officers, or any person designated by said Board as aforesaid shall desire or request the same, and shall be thoroughly cleansed and purified by such proprietor, or person or persons in charge thereof, under the direction of said Inspector of Nuisances, or of a person designated by said Board as aforesaid, as often as such Inspector, or such last-named person, shall require the same to be done, not exceeding four times in any one year.

SEC. 2. No dead body shall be deposited or received in any such vault or tomb, unless such body be first hermetically sealed in a metallic coffin, or is intended to be sealed up in the masonry of such vault or tomb, or is placed in such vault or tomb only temporarily, and in a strong, tight box ready for removal; and no dead body shall, without the written license of said Mayor or Board of Aldermen first obtained be left or suffered to remain or be in such tomb or vault for more than ten days, unless the same be carefully sealed in masonry impervious to fluid and to odors.

SEC. 3. No dead body of any human being shall be buried or entombed in this city, nor removed from this city, without a permit first obtained from the Mayor; and every person in charge of a cemetery or burying place, in this city, shall require and receive such permit from the person who procured the same, before allowing the interment or entombment of any such body in such cemetery or burying place, and shall, every Monday before 12 o'clock noon, return to the City Clerk's Office, for the Mayor, every permit so received by him during the week ending with the previous Saturday.

SEC. 4. Every violation of any provision of this ordinance shall be punished by a fine of not more than twenty dollars, or by imprisonment for not more than ten days; and this ordinance shall go into effect immediately.

AN ORDINANCE IN AMENDMENT OF CHAPTER XX OF "AN ORDINANCE COMPRISING THE ORDINANCES OF THE CITY OF NEWPORT."

[Passed February 16, 1880.]

It is ordained by the City Council of the City of Newport, as follows:

SECTION 1. Section 10 of said Chapter XX is hereby amended so as to read as follows: "Section 10. No person shall bury or deposit any dead horse or other animal, or any offal, garbage or rubbish, in or upon Easton's beach, so called."

SEC. 2. Every person who shall violate any provision of said section 10 as hereby amended, shall be fined ten dollars, or be imprisoned not more than ten days for each violation thereof.

SEC. 3. This ordinance shall take effect immediately.

City Document No. 8.

MAYOR'S OFFICE, NEWPORT, May 12, 1880.

Gentlemen of the City Council:

At the commencement of this year, I called to your attention the subject of an independent Board of Health. Owing to legal objections the subject has not been urged. The Legislature has now by special enactment authorized the City Council to elect such a Board, and to confer upon them such powers as in their judgment they may think best.

During the year, as you are aware, the Board of Aldermen have been favored with the advice of three most competent persons. In asking these gentlemen to serve as an advisory Board of Health, it was "until such time as suitable legislation could be procured."

This arrangement has been of benefit to the city, but it is not such a one as is productive of the best results.

I wish earnestly now to recommend the election of an independent Board in accordance with the act of the Legislature; men selected for their special qualifications for such office, to whose judgment you would individually defer upon any question affecting the sanitary welfare of our city. It is in no sense derogatory to the ability of the gentlemen composing the Board of Aldermen to say that they are not best qualified for the duties of a Board of Health. They themselves would individually admit this to be the case.

Sanitary matters have for Newport a two-fold bearing, *both* of vital importance. As a principle, there can be no question in your mind that we should do all we can to surround every citizen with all proper safeguards to his health and to that of his family. That the neglect of the ordinary laws of health in communities does aggravate disease is, I believe, very generally admitted. That filth is a proper soil to propagate the germ of certain diseases is perhaps equally true; so that it is safe to assert, that while no precaution could keep away disease, proper precaution might very much modify its virulence. There are, *I believe*, localities in this city where the sanitary condition is so bad as to render it almost certain that there will be at least one death a year from preventable causes. This does not perhaps strike one very forcibly, unless we stop and think, some one dear to us may die where otherwise they might have lived. Looked at from this standpoint, it seems a very serious matter. With every indication of the prevalence of scarlet fever as an epidemic in our midst, next winter—the seeds having been sown this year in six or eight localities; with the small pox in various cities around; with the *reports* of yellow fever thus early in the year at New Orleans, and even and as far north as Delaware Breakwater; it does seem as though it was the duty of the city to adopt a more thorough and intelligent method regarding its sanitary condition.

As a policy, Newport stands in a position where to neglect due attention to sanitary reform, is a question of a loss each year of a definite sum in dollars and cents. Let but half a dozen families be deterred from coming here for a single season, by reason of some report of sanitary neglect, and Newport has lost a sum equal to the expense of a Board of Health for a number of years.

I would recommend that the City Council, at the beginning of the year, should elect three gentlemen, to serve without pay, for terms of one, two and three years, respectively. The offices of Inspector of Nuisances and Overseer of small pox should be abolished, and they should have the authority to appoint a sanitary inspector, who might also be secretary of the Board.

Any increased expenditure, by reason of this change, would be capital so invested as to return to the city each year ample and satisfactory dividends.

J. Truman Burdick,
Mayor.

INAUGURAL ADDRESS.

In his Inaugural Address, June 7, 1880, His Honor Stephen P. Slocum, Mayor, made the following remarks in relation to the public health:

"The preservation of the public health is a matter which goes directly to the existence of the community, and therefore should receive your careful consideration, and will demand your determined and energetic action. The refuse from every dwelling in the city should be promptly removed, and be so removed that the public health and the public convenience will not suffer either by its presence or its removal. The subject of improved drainage for the city has already occupied much of the attention of the City Government, and will command, as it deserves, much attention from you; but the subject calls for something more than consideration. It needs that a plan should be adopted and that action should be had under it. Not only that a plan should be adopted, but that something should be done toward carrying out the plan adopted."

City Document No. 28.

ANNUAL REPORT OF THE INSPECTOR OF NUISANCES.

To the Honorable City Council:

Gentlemen—The undersigned herewith submits his Annual Report on Nuisances for the year ending May 31, 1880. Whole number complained of during the year is six hundred and ninety-seven, all of which have been abated.

First quarter, ending August 31, 1879	329	
Second quarter, ending November 30, 1879	227	
Third quarter, ending February 27, 1880	33	
Fourth quarter, ending May 31, 1880	108	
		697

I would state that the vaults in the different burying-grounds have been examined. There have been forty-seven remains removed from the Island Cemetery vaults,and six remain in No. 41; five are bricked in, and one prepared to be removed. Said vaults have been cleaned, cleansed and whitewashed; all the rest of the vaults are in very good condition. I have also notified one hundred and fifty-two persons that have kept hogs within the limits of the compact part of the city that they must remove them outside of the compact part of the city, and they have done so. I know not of any hogs within said limits at this time.

Respectfully submitted,

Wm. H. Bailey,
Inspector of Nuisances.

The following note from Capt. J. P. Cotton, of the Engineer Office U. S. A., will explain itself:

Newport, R. I., May 12, 1881.

Charles H. Fisher, M. D., Secretary State Board of Health, Providence, R. I.:

Dear Sir—I have been trying to find time to answer your questions, but up to this time have failed. I will now endeavor to do so.

1. *Plan of sewerage?* The answer to this is given in the report sent to-day.

2. *Plan of water supply?* The collecting ground is, for the most part, an agricultural one, with gentle slopes. The impounding reservoir is a portion of Easton's pond. The bottom of it, in the shoaler portions, is silt with a rank vegetable growth. This growth causes a discoloration and a slight taint to the water in the latter part of the summer. There is a small reservoir, holding a few days' supply, to be drawn from in case of accident to the pumping machinery.

3. *Quality of water?* There have been frequent analyses of the water, and in nearly every case the report of these has been that it was of excellent quality. One made late last season was unfavorable in the amount of organic matter, I am told.

4. *Number of users?* There are between 800 and 900 takers of water, or probably about one-third of the inhabitants.

5. *Condition of wells?* I should regard all wells in the old part of the town as suspicious.

6. *Proportion of population using wells for drinking water?* About one-third of the inhabitants (I think) use wells.

7. *Proportion using cisterns?* About one-third use cistern water.

8. *What business, malodorous or unsanitary?* Two bone-boiling and soap works are perhaps the only ones strictly so. These are small, but a nuisance in their neighborhoods. Efforts have been made to get rid of them, but thus far unsuccessfully.

Yours truly,

J. P. COTTON.

PROVIDENCE COUNTY.

BURRILLVILLE.

1. The diseases that have prevailed to an unusually large extent in this town during the past year are diphtheria, tonsilitis and laryngitis.

2. There are very few, if any, localities in this town which are generally believed to foster any one disease more than another. It may be said, however, that typhoid fever is generally more prevalent in the village of Plainville than elsewhere in the town.

3. No localities are known which are believed to be productive of general ill-health without resulting in special forms of disease.

4. No widely spread or largely fatal disease, contagious or otherwise, has occurred among domestic animals in the town during the year.

5. No regulations have been adopted in 1880 by the town council of this town in relation to the promotion and protection of the public health, except that a large piggery has been removed from the town by order of the town council.

ALVAH MOWRY.

CUMBERLAND.

1. No diseases have prevailed to an unusually large extent in this town during the past year to my knowledge.

2. I have no knowledge of any localities in this town which are generally believed to foster any one disease more than another.

3. Nor do I know of any localities which are believed to be productive of general ill-health.

4. There was not any widely spread or largely fatal disease, contagious or

otherwise, which occurred among domestic animals in this town during the year 1880, except a disease of cattle during the fall of 1880, confined to the farm of Joel P. Jenckes, the name of which I am not able to give.

5. No regulations have been adopted of a public nature during 1880 by the town council of this town in relation to the promotion and protection of the public health.

H. A. Follett.

FOSTER.

1. No diseases have prevailed to an unusually large extent in this town during the past year. Scarlet fever—only two deaths—locality, the central part of the town. A considerable number of cases of pneumonia and typhoid fever have occurred during the year.

2. There are no localities in town which are generally believed to foster any one disease more than another to my knowledge.

3. I have no knowledge of any localities which are believed to be productive of general ill-health.

4. I have not heard of any widely spread or largely fatal disease, contagious or otherwise, that has occurred among domestic animals in this town during the year 1880.

5. There have been no regulations adopted, or work commenced or completed in 1880, by or under the direction of the town council of this town in relation to the promotion and protection of the public health.

G. W. Phillips.

GLOCESTER.

1. No diseases have prevailed to an unusually large extent in this town during the past year.

2. No places are known to me in this town which are generally believed to foster any one disease more than another.

3. Nor do I know of any localities which are believed to be productive of general ill-health.

4. No widely spread or largely fatal disease, contagious or otherwise, has occurred among domestic animals in the town during the year.

5. No regulations have been adopted, or work of a public nature commenced or completed in 1880 under the direction of the town council, in relation to the promotion and protection of the public health.

C. W. Farnum.

NORTH PROVIDENCE.

1. No diseases have prevailed to an unusually large extent in this town during the past year. The town has been more healthy than usual during the whole year.

2. Not any localities in the town which are generally believed to foster any one disease more than another.

3. And there are no localities which are believed to be productive of general ill-health.

4. No widely spread or largely fatal disease, contagious or otherwise, occurred among domestic animals in the town during the year.

5. No regulations have been adopted, or work of a public nature commenced or completed in 1880, under the direction of the town council of this town or any health officer, in relation to the promotion and protection of the public health.

T. H. Angell.

LINCOLN.

1. No diseases have prevailed to an unusually large extent in this town during the past year.

2. There are no localities in this town to my knowledge which are generally believed to foster any one disease more than another.

3. No localities which are believed to be productive of general ill-health.

4. No widely spread or largely fatal disease, contagious or otherwise, has occurred among domestic animals in this town during the year 1880.

5. No regulations have been adopted, or work of a public nature contemplated, commenced or completed in 1880, by or under the direction of the town council of this town or any legally authorized health officer, in relation to the promotion and protection of the public health.

W. H. Gooding.

PAWTUCKET.

1. I am not certain that any diseases have prevailed to an unusually large extent in this town during the past year. The following were deaths from some prominent diseases: Cholera infantum, 24; pneumonia, 22; consumption, 18; scarlet fever, 14; typhoid fever, 12; scarlatina, 9; total, 99. There were returned to this office for the year ending 1880, 204 deaths; from other causes not specially mentioned there were 105 deaths.

2. There are no localities to my knowledge in the town which are generally believed to foster any one disease more than another.

3. I know of no localities which are believed to be productive of general ill health.

4. No widely spread or largely fatal disease, contagious or otherwise, has occurred among domestic animals in this town during the year.

5. No regulations have been adopted, or work of a public nature of importance commenced in 1880, by or under the direction of the town council or any legally authorized health officer, in relation to the promotion and protection of the public health. A thorough system of water supply has been completed within two years, and is now in successful operation.

LEWIS PEARCE.

SCITUATE.

1. No diseases to my knowledge have prevailed to an unusually large extent in this town during the past year.

2. I do not know of any localities in the town or district which are generally believed to foster any one disease more than another.

3. I have not heard of any localities which are believed to be productive of general ill-health.

4. No widely spread or largely fatal disease, contagious or otherwise, has occurred among domestic animals in the town during the year 1880. The epizootic among horses prevailed to some extent in October and November.

5. No regulations have been adopted, or work of a public nature commenced in 1880, by or under the direction of the town council of this town, in relation to the promotion and protection of the public health

D. H. REMINGTON.

SMITHFIELD.

1. If any diseases have prevailed to an unusually large extent in this town during the past year they are to the best of my knowledge the following: Scarlatina, March and May; diphtheria, May.

2. I do not know of any localities in the town which are generally believed to foster any one disease more than another.

3. I think there are no localities which are believed to be productive of general ill-health.

4. No widely spread or largely fatal disease, contagious or otherwise, has occurred among domestic animals in this town during the year.

5. No regulations have been adopted, or work of a public nature commenced in 1880, by or under the direction of the town council of this town, in relation to the promotion and protection of the public health.

O. A. TOBEY.

WOONSOCKET.

1. I do not learn that any serious diseases have prevailed to an unusually large extent in this town during the past year.

2. I have no knowledge of any localities in this town which are generally believed to foster any one disease more than another.

3. I know of no localities which are believed to be productive of general ill-health.

4. No widely spread or largely fatal disease, contagious or otherwise, has occurred among domestic animals in this town during the year 1880, unless the epizootic among horses be excepted.

5. No regulations have been adopted, or work of a public nature commenced in 1880, by or under the direction of the town council or any legally authorized health officer, in relation to the promotion and protection of the public health to my knowledge.

A. E. GREENE.

PROVIDENCE.

1. The diseases that have prevailed to an unusually large extent in this city during the past year are as follows, named in the order of largest number, as nearly as known: catarrhal influenza, bronchitis, scarlatina, pneumonia, cholera infantum and typhoid fever.

2. There are no localities in the city which are generally believed to foster to any large extent any one disease more than another. There are several locations, of limited extent, where reckless and abandoned characters congregate, and live in filthy and poorly ventilated rooms, and filthy surroundings, in which typhoid fever, cholera infantum and consumption are fostered.

3. The localities which are believed to be productive of general ill-health are those mentioned under question 2.

4. No largely fatal disease, contagious or otherwise, has occurred among domestic animals in the city during the year 1880. The epizootic among horses in October and November, was the most widely spread. Spinal meningitis has affected a considerable number of horses, and has necessitated the killing of many.

5. The regulations that have been adopted, and works of a public nature contemplated, commenced or completed in 1880, by the consent or under the direction of the city council, in relation to the promotion and protection of the public health, are as follows:

In July, an ordinance was passed (which became a city law in September) to carry into effect chapter 815 of the Public Laws in relation to a board of public works for the city. Section 2 of said chapter 815 reads as follows:

"The board of public works shall have, subject to the control of the city council, the general charge and management of the construction, reparation and maintenance of all common sewers and drains, whether laid in public streets or through private property."

In his Inaugural at the commencement of the year, the Mayor observed, "That the board of aldermen at the present time, in consequence of the amount of other business, cannot give that attention to matters concerning the public health which should be accorded thereto, and hence the sanitary measures are entirely left to the superintendent, and the board has to pass hastily upon such subjects as he may present for consideration.

"It is the opinion of the superintendent of health, that a board of health should be organized in this city, the members of which should be selected with special reference to their qualifications for the position, and who shall have the time to devote to the proper performance of their official duties. In this opinion I fully concur, and therefore bring the matter to your notice.

"An act passed by the general assembly April 12, 1878, provides for the appointment by the city council of a board of health, 'which shall have all the powers and duties now conferred by law upon the board of aldermen as a board of health.' Such a board, therefore, can be established at the pleasure of the city council, without the slightest interference with the workings of the department, and with but slight expense, as the members would serve without compensation. With practical men giving their direct attention to sanitary measures, the best of results must follow therefrom, and the city be made still more desirable as a place of residence.

"There are many subjects of vast importance to the sanitary as well as to other interests of the city, which would claim their calm, deliberate and careful judgment, and to which their attention could be at once devoted. Among these is one to which the board of aldermen cannot give due heed, and that is the quantity of sewage being poured into the waters above, beneath and just below Weybosset bridge, which, added to the refuse poured into the two rivers emptying into the cove basin, is accumulating a mass of filth deleterious to public health and dangerous in the extreme. This matter cannot be too quickly considered, unless it be thought best to await the coming of disease before a remedy be provided. In this case prevention will certainly be better than cure."

BOARD OF PUBLIC WORKS.

RULES AND REGULATIONS FOR LAYING PRIVATE DRAINS.

1. Applications for permits to connect with any sewer must be made in writing to the board of public works by the owners of the property to be drained, or by their duly authorized attorneys, and must be accompanied by a clear description of the premises to be drained, and of the drains required, and also by certain agreements, all as provided in the printed form of application issued by said board.

2. No one but a drain-layer duly licensed by the board of public works will be allowed to make connections with the public sewers named in the above section, nor lay any drains in connection therewith, and any person so licensed shall

give personal attention to any work done under his license. He shall also employ none but competent persons to do said work.

3. Notice must be given at the office of said board, and if necessary, twenty-four hours before any street or public way can be opened for the purpose of laying a private drain, or before any drain pipe can be extended from work previously done and accepted, or new connections of any kind be made with such work, unless otherwise permitted by the city engineer.

4. No work of laying drains can be commenced or continued unless the permit is on the ground, in the hands of the drain-layer, or some one employed by him.

RULES FOR LAYING DRAINS.

1. In opening any street or public way, all materials for paving or ballasting must be removed with the least possible injury or loss of the same, and together with the excavated materials from the trenches, must be placed where they will cause the least practicable inconvenience to the public. As little as possible of the trench must be dug until the junction piece into the sewer is found, unless it is first determined to make a new opening into the sewer.

2. Whenever, in the opinion of the city engineer, or authorized inspector, the sides of the trenches will not stand perpendicular, sheeting and bracing must be used to prevent caving.

3. The board of public works, the city engineer, and their authorized agent, are to have at all times facilities for inspecting the work and materials while under the charge of the drain-layer; and, if so required, no pipes or other materials for the drains can be used till they have been examined and approved.

4. The least inclination that can be allowed for water closet, kitchen and all other drains of not over six inches diameter, liable to receive solid substances, is one-half an inch in two feet; and for cellar or other drains, to receive water only, one quarter of an inch in two feet. The depth of the crown of the drain at the curb line shall be determined by a rise of a quarter of an inch per foot from the crown of the sewer directly opposite.

5. The ends of all pipes, not to be immediately connected with, are to be securely stopped by brick and cement, or other water-tight and imperishable materials.

6. All pipes that must be left open to drain cellars, areas, yards or gardens, must be connected with suitable catch-basins, the bottoms of which must not be less than two and one-half feet below the bottom of the outlet pipe, the size, form and construction of which are to be prescribed by the officers named in the second rule. When meat-packing houses, slaughter houses, lard rendering establishments, hotels or eating-houses, are connected with the sewers, the dimensions of the catch-basins will be required to be of a large size, according to the circumstances of the case. When the end of the drain pipe is connected with a temporary wooden catch-basin for draining foundations during the erection of buildings, the drain-layer will be held responsible that no dirt or sand is carried into the drain or sewer from such temporary catch basin.

7. No private catch-basin can be built in the public street, but must be placed inside of the line of the lot to be drained, except when the sidewalks are excavated and used as cellars.

8. Unless special permit shall be granted by the board of public works, no privy vaults can be connected with the sewers except through an intervening catch-basin, and the discharge pipe of the vault must be high enough above its bottom to effectually prevent anything but the liquid contents of the vault from passing into the drain.

9. The inside of every drain, after it is laid, must be left smooth and perfectly clean throughout its entire length, and to insure the same, a scraper of suitable material, of the shape of the pipe, and slightly less in diameter, shall be drawn through each length of pipe after the same has been laid.

10. In case it shall be necessary to connect a drain pipe with a public sewer where no junction is left in such sewer, the new connection with such sewer can only be made either by one of the employees of the board of public works, or when an officer, named in rule two, is present to see the work done.

11. Whenever it is necessary to disturb a drain in actual use, it must in no case be obstructed without the special direction of one of the officers named in rule two.

12. The back-filling over drains, after they are laid, must be puddled or solidly rammed, and together with the replacing of ballast and paving, must be done within forty-eight hours after the completion of that part of the drain lying within the public way, and done so as to make them at least as good as they were before they were disturbed, and to the satisfaction of the board of public works and the officers mentioned in second rule; and the owner will be held responsible for any settlement of the ground which occurs within one year on account of laying said drain. All water and gas pipes must be protected from injury or settling, to the satisfaction of the engineer.

13. Every drain-layer must enclose any opening which he may make in the public streets or ways with sufficient barriers, and must maintain red lights at the same at night, and must take all other necessary precautions to guard the public effectually against all accidents from the beginning to the end of the work; and can only lay drains on condition that he shall use every precaution against accidents to persons, horses, vehicles, or property of any kind.

14. In case a water or gas pipe should come in the way of a drain, the question of passing over or under the water or gas pipe, or of raising or lowering it, must be determined by one of the officers named in rule two.

15. All exhausts from steam engines, and all blow-offs from steam boilers, must be first connected with a catch-basin of such dimensions as the officers mentioned in second rule may prescribe, and in no case will they be allowed to connect directly with the private or public sewers, without special permission from the board of public works or the city engineer.

16. Such information as the city engineer has with regard to the position of

junctions will be furnished to drain-layers, but at their risk as to the accuracy of the same.

17. When any change of direction is made in the pipe, either in a horizontal or vertical direction, curves must be used. No pipe can be clipped contrary to the direction of officers mentioned in rule two.

18. All persons are required to place an effectual trap in the line of drain just before it leaves the premises, and to make an open connection with a down-spout back of the trap; also, when possible, to make an open connection with the highest part of the soil-pipe within the premises through a large pipe or flue, to a point above the roof of the building, unless special permit to vary from the same shall be granted by the board of public works.

19. The drain-layer shall faithfully observe all the rules for laying drains, as adopted by the board of public works, and, if so directed, shall not cover any of his work until it has been examined and accepted by the proper officer.

20. No drain-layer or person employed by him will be allowed to rest any planking or other material upon any gas or water pipe. Violations of this rule will be sufficient cause for the revocation of license.

21. The drain-layer who obtains the permit shall faithfully fill out the blank return provided, whether for new work or for alterations or additions, and return the same within forty-eight hours after the completion of said work.

22. All work shall be done in such manner and at such times as to interfere as little as possible with the public travel and convenience; and the drain-layer shall conduct his work for this object as the engineer may from time to time direct.

23. Every person violating any of the provisions of the foregoing rules shall be liable to pay a fine of not less than twenty nor more than fifty dollars, and shall be subject to a forfeiture of his license.

The following Regulations, providing for obtaining Reports of Cases of Contagious, Infectious, or Epidemic Sickness, were continued in force:

1. Every physician having knowledge of the existence of any case of contagious, infectious, or epidemic disease within the city of Providence, shall immediately make a report thereof in writing, to the superintendent of health of said city, with such particulars as the said superintendent may indicate on blanks furnished for that purpose.

2. The diseases referred to in the preceding section shall, among others, include especially small pox, diphtheria, typhoid fever, typhus fever, scarlet fever or scarlatina, cerebro-spinal meningitis or spotted fever, measles, and hooping cough.

3. Any physician who shall fail to comply with the preceding regulations, shall be fined not less than two dollars nor more than ten dollars for each day of such neglect, after having knowledge thereof as aforesaid.

WASHINGTON COUNTY.

CHARLESTOWN.

1. No diseases have prevailed to an unusually large extent in this town during the past year.

2. There are no localities in this town which are generally believed to foster any one disease more than another.

3. And no localities which are believed to be productive of general ill-health.

4. There has been no widely spread or largley fatal disease, contagious or otherwise, among domestic animals in the town during the year 1880.

5. No regulations have been adopted, or work of a public nature commenced in 1880, or under the direction of the town council, in relation to the promotion and protection of the public health.

Charles Cross,
per A. H. Ecclestone, M. D.

EXETER.

1. The diseases that have prevailed to an unusually large extent in this town during the past year are typhoid fever—largest number of cases of—about all recovered; and cholera infantum next—most cases fatal.

2. I am not aware that there are any particular localities that foster any disease.

3. I am not aware of any localities which are believed to be productive of general ill-health.

4. No widely spread or largely fatal disease, contagious or otherwise, among domestic animals during the year 1880.

5. No regulations have been adopted, or work of a public nature commenced in 1880, by or under the direction of the town council, in relation to the promotion and protection of the public health.

N. B. Lewis.

HOPKINTON.

1. No diseases have prevailed to an unusually large extent in this town during the past year.

2. There are no localities in the town which are generally believed to foster any one disease more than another.

3. I do not think there are any localities which are believed to be productive of general ill-health.

4. No widely spread or largely fatal disease, contagious or otherwise, has occurred among domestic animals in this town during the year 1880.

5. No regulations have been adopted, or work of a public nature commenced in 1880, by the town council of this town, in relation to the promotion and protection of the public health.

E. R. ALLEN.

RICHMOND.

1. No diseases, to my knowledge, have prevailed to an unusually large extent in this town during the past year.

2. No localities in the town which are generally believed to foster any one disease more than another.

3. I am not aware of any localities which are believed to be productive of general ill-health.

4. There has been no widely spread or largely fatal disease, contagious or otherwise, among domestic animals in this town during the year.

5. No regulations have been adopted, or work of a public nature commenced in 1880, by the town council of this town, in relation to the promotion and protection of the public health.

H. P. CLARKE.

SOUTH KINGSTOWN.

1. No diseases have prevailed to an unusually large extent in this town during the past year except an epidemic bronchitis.

2. There are no localities in this town, to my knowledge, which are generally believed to foster any one disease more than another.

3. No localities which are believed to be productive of general ill-health.

4. No widely spread or largely fatal disease, contagious or otherwise, among domestic animals in this town during the year.

5. No regulations have been adopted, or work of a public nature commenced in 1880, by the town council of this town, in relation to the promotion and protection of the public health, except in June, 1880, the town council ordered vaccination, which was performed at district school-houses by Drs. J. E. Perry, of Wakefield, and H. L. Stillman, of Usquepaug.

LOCAL BOARDS OF HEALTH.

It has been previously stated that the town councils of the towns, and the aldermen of the cities, are by law the local boards of health in their several towns or cities, unless the town councils or city councils appoint special boards of health to supervise that department of duty in place of the said town councils or board of aldermen.

In the State of Rhode Island, no town or city council has appointed any such board of health for a permanent work, or delegated its powers in the direction of conserving the public health to any individual, board or committee. In compact communities, where exists a population of ten thousand or more, a health officer or board of three or more persons, having special qualifications for making sanitary investigations, should be appointed to detect and report the existence of places and conditions prejudicial to the health of the people in the vicinity of those places, and suggest means of abatement.

In the absence of such special appointments, the people of any compact community may accomplish much by the formation of voluntary associations, for the mutual advantage of the members themselves, and eventually of those in the midst of whom they reside.

But few such organizations have been formed in this State, and among them by far the most important is that, an account of which follows, given in considerable detail, as the reasons for the organization and objects to be attained exist in other communities, and the views entertained by its members are eminently pertinent and true, and may be profitably entertained elsewhere.

SANITARY PROTECTION ASSOCIATION OF NEWPORT.

This organization was established near the close of the year 1878.

It comprises, among its members, gentlemen of the highest intelligence, largest culture, and most prominent social position in Newport, men distinguished in literary, scientific and business pursuits, private citizens and citizens connected with public service in the city, the State, and the United States.

It is not much too to say, that its existence has been and bids fair to be of value to the city, as a constant monitor of sanitary neglect, and a constant agitator of questions appertaining to public and individual health, healthy homes and healthy surroundings. It would be well if such an organization existed in every town in the State. The let-alone policy is the policy of retrogression and decay. Agitation is life, apathy is death.

If, as is alleged by some parties. this association is too aggressive, and seemingly unwarranted in its attacks upon the sanitary and legal status of the city, it should be remembered in extenuation of its proceedings, that reform is seldom accomplished otherwise than by vigorous and repeated attacks upon existing evils ; and, admitting that evils exist, it is often necessary to propose more stringent and extensive measures, and point to more brilliant results than can be expected to be obtained in order to *secure* measures and results that are *absolutely* needful. This is not saying, however, that the association is governed by any such motive.

The following extracts are taken from the Report of the Secretary, made at the annual meeting in 1880. The reasons for the organization of the association, the objects which it desires to accomplish, and an account of some of the work done and results obtained, are in part given.

"The inhabitants of Newport, owing to the situation of their city, have always enjoyed remarkably good health, and the fact that this has been the case is looked upon by them with pride and satisfaction, and they have been unwilling to open their eyes to the present or to look forward to the future. It is sufficient that the pure air of heaven has, in the past, brought health and longevity to them, and it is taken as a matter of course that such will be the case for all time to come.

"To be sure, the breezes, as they blow fresh from the sea, are pure as of old, but as they come sweeping through the now thickly populated town, passing through back-yards filled with mire of slops and filth, and over stagnant water and marsh, the receptacles of garbage and sewage, the pure oxygen is soon contaminated with gases which are not health-giving though they may not immediately kill.

"There was a time when wells dug down into the solid rock furnished pure spring water. By an occasional cleaning of the well, one generation after another could go on using this water without a doubt of its purity. But estates have been divided and sub-divided, other wells have been sunk, and new cess-pits dug —the latter, perhaps, on account of the narrow limits of the place, close to the well of some old homestead.

"Soon the soil becomes impregnated by the liquid filth, and, naturally, the water of the wells in the neighborhood is infected. This has continued until it is the exception where the water of a well is found fit for domestic purposes.

"In some portions of the city, owing to the neglect of the public authorities to remedy existing evils, the air became laden with poison germs, and so reduced the system of many, that they readily fell victims to any contagious disease which might spring into existence.

"The importance of placing under strict vigilance the inmates of a house where such disease existed, was overlooked, so that the death-rate of Newport, though small as compared with other cities, was large in those cases which might have been prevented.

"Eminent physicians, summer residents of Newport, anxious as well for the reputation of the city, as to adapt the place to the necessities of city patients, alluded in print to the importance of measures being taken to improve its sanitary defects, and complaints were addressed to the city authorities by native physicians and others. But these appeals were unwelcome and unheeded, and far from what was earnestly desired, resulted in openly expressed ingratitude to the authors of them.

"Although the board of aldermen were empowered by the state to appoint a board of health, which should have all the powers and duties conferred upon the board of aldermen, as a board of health, and notwithstanding the wish of the people, and a memorial signed by the physicians of the city, yet they practically refused to exercise their powers, nor would they confer them upon others.

"Thus matters stood in the fall of 1878 when the Sanitary Protection Association was organized for the purpose of mutual insurance, an organization of citizens acting in self defence. But, by its constitution, it has no political interests whatever, but was organized strictly for the preservation of private and public health.

"It is not, as many seem to think, intended as a substitute for municipal inspection, nor will it conflict with the action of the public authorities, but it solely wishes to assist them in their protection of every citizen.

"The new principle of sanitary protection was originally conceived by Prof. Fleeming Jenkin, of the University of Edinburgh, in the early part of 1878, and an association was formed in that city, the objects of which form the basis upon which the Newport association is founded. These are—

"To provide its members, at moderate cost, with such advice and supervision as shall insure the proper sanitary condition of their own dwellings.

"To enable members to procure practical advice, on moderate terms, as to the best means of remedying defects in houses of the poorer class in which they are interested.

"And to aid in improving the sanitary condition, and consequent good repute, of the city, by following such course as, in the opinion of the council, may seem calculated to promote this object.

"The tardiness which the public shows in availing themselves of the benefits of such an association may be attributed to apathy in some, and in others, to ignorance. We are constantly reading of death and disease due to the neglect of the simplest precautions; we are instructed through the columns of the newspapers, and by sanitary tracts and primers, as to what we should do, but, with the best will in the world, we cannot always be thinking about drains, nor can every householder qualify himself for the functions of house surveyor and medical officer of health; so the practice of the father of a family usually is to let things alone until, under the alarm of illness in his house, he decides that the drains must be looked into. Advice may be given, and work done, by some local tradesman, who may be ignorant or careless of sanitary requirements, and one cannot feel certain that he has got his money's worth in safety.

"Matters are somewhat mended when a sanitary engineer of repute is consulted, but the bill will be much larger. And so, with many, the fear of the expense induces them to subject themselves, and other people, to much risk.

"We all know that the result of long experience proves that poison-germs enter from without, chiefly by the agency of sewer-gas and drinking water. Serious illness may be contracted by breathing air containing an almost infinitesimal quantity of tainted gas. Simple sewer gas is little worse than a bad smell, but the tainted gas may be so poisonous, that a very little introduced into a bedroom, so little as to be quite imperceptible to the nose, will almost certainly give typhoid fever to a person sleeping there. How important then it is that we should not only put our houses in perfect order, but keep them so—and this can only be done by a systematic inspection.

"In some cities an official exists whose duty it is to inspect the execution of all work which pertains to the sanitary arrangement of a house, while it is being built, but his duty does not extend to any subsequent inspection.

"The drains and pipes may have been well designed, and the work well executed, but the decay and failure of drains and pipes is especially dangerous, because these are invariably out of sight. The lead and iron pipes are gradually eaten away, until large holes admit sewer-gas behind the paneling, and so into our bedroom. Yet no greater warning is given than a slight closeness in the room.

"Drains crack underground, as old or new houses settle, and the sewage pours into the basement; some one of the family, with the sense of smell more acute than with others, complains of bad odors, but the evil grows so slowly, that we are not forced into action on any one day.

"Cement crumbles away from joints originally well made; rats eat through putty, and then at the junction, perhaps, of an expensive leaden pipe with a well laid drain, we have a hole, through which, day and night, sewer-gas pours into the house; and yet the house may be considered remarkably sweet.

"Not unfrequently, the passage of the sewage through the drains is wholly interrupted by the mere accumulation of kitchen grease, or rags; then, while the sewer retains the solid filth, the liquid oozes out at every pore, and yet no harm is suspected. Sometimes, even in a hidden pipe, no trap whatever is introduced between the house and the sewer, and no one is at all the wiser until disease breaks out.

"These accidents are samples of ordinary and inevitable decay, even when work has been well designed and well executed, as has been demonstrated time and time again, and in the inspections made by the engineer of this association, every one of the defects enumerated above have been encountered.

"This shows the importance of a systematic inspection. But few people are willing to incur the expense or the professional skill which such an examination requires, but if each person interested subscribes his annual fee, then he may command the service of a competent engineer, and feel secure in the permanent efficiency of his arrangements.

"The association has been slow in its growth, but, upon considering the disfavor with which it was received by the people of our city in the early portion of its existence, we have cause for congratulation that it is steadily increasing its good work, and gaining ground in the estimation of the public.

"Communications have been received from all parts of the country, requesting information in regard to the workings of the association, and in several cities, societies, springing from our own, have been formed, and are now in successful operation.

"Owing to the advantageous arrangement which this association, as a corporate body, is enabled to make, for the examination of water, many members have obtained an analysis, and, of the well waters examined, only one sample has been good water. Of the city water, two analyses have been made, one showing the water to be good, and the other, made during a season of continued drought, the water of the pond being low, and the sample unfiltered, resulting not so favorably.

"It is the desire of the association to have an analysis of the city water made each month, for the space of one year, that the average condition of the water, which so many of us use, may be ascertained.

"The association, in the exercise of its function of caring for the interests of its members, as also 'to improve the sanitary condition, and subsequent good repute of the city,' has sent several communications to the city authorities, and although as a general thing, these memorials have apparently been treated with indifference, yet they have served as food for thought, and so have not been without avail.

"During the past year, the public authorities have done much for the sanitary improvement of the city, and the present mayor, in his inaugural, impresses upon the city council the importance of determined and energetic action in all that pertains to the public health. Let us hope that the advance already made may be continued, until Newport may justly have the reputation, at home and abroad, of being one of the most healthy cities in the world.

"But do not leave all the work and responsibility to the city authorities. Each one of us is responsible for the sanitary condition of his own premises, and no one has a right to rest in his efforts until he has done all that is possible to secure the continued good health of all within his dwelling."*

The following questions, taken from the Circular Letter No. 1, of the Association, are applicable to nearly all homes, and especially those having sink or soil pipes leading to cess pools or sewers:

(*a*) Are the sanitary surroundings of the house perfect? Do the trees and shrubbery permit sufficient exposure of it to the sun?

(*b*) Is the water pure and drinkable? If from a well or cistern, has it connection with the external air?

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* Lt. Comm. E. M. Stedman, U. S. N., Sec.

(*c*) Is the cellar dry, well ventilated and free from decomposing matter which may give forth seeds of sickness and death, and has it a drain? This drain must be wholly unconnected with any sewer.

(*d*) Is the cellar air entirely excluded from the air supply of the furnace?

(*e*) Has every bed chamber free ventilation and direct means of communication with the external air?

(*f*) If contagious or infectious disease of serious character has occurred in the house, have the sick chamber, etc. (bedding, wearing apparel, curtains, carpet and upholstered furniture), been thoroughly disinfected, and the wall paper removed?

(*g*) Has each water closet means of external ventilation, and not into an entry or bed chamber?

(*h*) Are the soil pipes in a sound condition and easily accessible for examination? Are they of iron, with lead plugged joints (the only true condition for a properly constructed soil pipe)? or are the pipes of lead? and if of lead have they been in the house for a number of years, and thus perforated with holes through which sewer gas escapes into the house?

(*i*) Has the soil pipe a proper vent through the roof?

(*j*) Is the soil pipe in its exit through the foundation of the house of iron or of earthen ware? if of the latter is it broken off in or just outside of the foundation, so as to allow the sewage matter of the house to find its way throughout the foundation (a condition which is almost always found to exist where earthen ware pipes are used?)

(*k*) If there are set bath tubs, basins or wash tubs, are they securely trapped? Is the kitchen sink safely trapped? It must not be forgotten that the ordinary bell trap does not perfectly exclude sewer gas, which its water absorbs and transmits, and that the S trap is liable to be "syphoned," or emptied by inward suction, so as to permit the escape of gas into the house from the soil pipe or drain.

(*l*) Is the waste water pipe of the refrigerator entirely cut off from all connection with the soil pipe?

(*m*) Is the cesspool near the foundation wall? is the cesspool a loose one? and is there any overflow, or leakage into the foundation, cistern or well?

A very lengthy and exhaustive account, historical and descriptive, of the initial steps taken, progress, organization and work of the members, individually and by association from the beginning down to the present time, was prepared by Dr. H. R. Storer, Corresponding Secretary of the association, but its length precluded its publication entire in the limited pages of this report, and, as it was so connected in all its parts as to forbid the use of any part in justice to the whole, its publication was relinquished by force of circumstances.

INTERMITTENT FEVER.

During the late summer and autumn of the year 1880, reports came from several towns in the State of the prevalence of intermittent fever to a greater or less extent. It was reported as prevalent to a limited extent in East Greenwich as early as June. A few cases, widely scattered, occurred in the inland towns, otherwise the disease prevailed in much the largest measure in towns lying upon the Atlantic ocean and Narragansett bay.

It has been handed down by tradition that the early settlers in this State, as well as those in many parts of Massachusetts and Connecticut, were subjected to the annual visitations of this disease. It clung to sections of western Massachusetts and central and western Connecticut quite largely, perhaps, no longer than thirty years ago. In this State it has scarcely been known within the present century until within a very recent period.

In other States, where it had apparently disappeared or had scarcely a noticeable existence twenty years ago and more, it has reappeared during the last few years, and up to the last season has gradually increased in prevalence and not infrequently in severity.

In this State the cases reported during the last year were not of the severest type, with the exception of those that occurred in Barrington.

THE INTERMITTENT FEVER IN BARRINGTON.

The suddenness of the outbreak, with the great severity of initial type, the large number attacked within the period of a few days and in a locality never before known to be visited, mark the circumstances of the fever in Barrington as of most extraordinary occurrence.

On the 18th of August, in 1880, a workman employed in the extensive yards of the Nayatt Brick Company was taken with the chills and fever, and by the 23d of the same month there were sixty more of the workmen laid up with the disease, suffering from it generally with high degrees of severity. By the 25th the largest number at any one time (about seventy) were on the sick list. About the 1st of September there was a general subsidence of the disease in those first affected and large lessening of the number sick.

On the 20th of the month of September, however, there was a largely increased number again on the sick list, amounting to nearly fifty.

From that date the number of cases gradually declined from fifteen to twenty every week, and by the last of October of those who had not left the premises but very few, if any, remained sick.

At one time there were about one hundred, including the sick and convalescent, who were disabled from active labor. The whole number sick is stated to have been one hundred and eighty-five, which comprised nearly all the persons employed around the yards.

The disease, however, was not confined to the premises of the brick company. At Drownville, about a mile distant from the brick yards, a farmer, long a resident of that section of the town, was taken with the chills on August 24th, and on the next day a daughter was taken in the same way, and both proved to be intermittent fever. It is said that these were not the first cases that occurred there, but the statement has not been verified, though it may be true. There were from twelve to fifteen cases in and around Drownville. At Prince's Hill, also about a mile distant from the brick yards, there were cases, and in the intervening territory between these points and the brick yards quite a number of cases occurred.

At Nayatt Point proper, three-quarters of a mile distant, it failed to make its appearance, except in one or two instances. Nayatt Point lies directly at the head of Narragansett bay, where it receives the waters of the Providence river, and is separated from the low lands around the brick yards by a ridge of land rising from twenty-five to thirty feet in height. Cases were also reported as having occurred in the town of Warren, about three miles distant from the brick yards, and at intervening places. Some of the cases occurring away from the brick yards were of persons who were employed at the yards, but the larger number had been no nearer than where they were taken.

The occurrence of intermittent fever, affecting so large a number of persons, in a section of country where it had never before been known within the memory of the oldest inhabitant, naturally excited a great deal of interest.

As to the cause or causes opinions vary. A topographical description of the brick yard premises and surrounding territory within which the malarial fever occurred, with the circumstances and conditions which were connected with them during the warm season of 1880, may help the professional mind, if of no others, to solve the question of cause.

An inspection of the map accompanying the description will materially assist in obtaining a clear idea of the location.

This fever and ague district is a shallow basin lying in the southwest half of Barrington, and between Barrington river (which is a stream of considerable width) on the northeast, Providence river on the west and Narragansett bay on the south. In round numbers it is about one and one-half miles in length by a half mile in width, irregular in outline and contains by estimate about seven hundred acres.

A ridge of hills, varying in height from twenty-five to sixty feet, surrounds the area running around from the southwest, easterly and northerly to the northwest in the form of an irregular circle, and enclosing the basin on nearly all sides. On the west of the brick yards is a plateau of meadow land of considerable extent, rising perhaps from six to eight feet above the bed of the brick yards and ten or twelve above the waters of the bay. The westerly border of the plain is skirted by a strip of woodland intervening between the yards and the Providence river.

Between the meadow plateau and the Providence river is a low salt meadow containing about thirty-five acres. This meadow can be kept full of fresh water through the year ordinarily by means of a dam on its southerly border. It is fed by springs and drainage, and is about two and one-half feet in depth when full.

The bed of the brick yards, containing the engine house, grinding machines and baking sheds, covers an area of about twelve acres. The excavations for obtaining the clay surround the bed on all sides but the west. There have been about twenty-five acres of excavations up to the season of 1880.

The level of the bed of the yards is about five feet above the level of Narragansett bay, five-eighths of a mile to the south. A canal three-quarters of a mile in length, of a width varying from thirty-five to two hundred feet, and one foot or more in depth, extends to the waters of the bay.

The excavation to the southeast of the brick sheds, more recently made by digging for supplies of clay for the works, covers an area of from twelve to fifteen acres of an average depth of fifteen feet, and is in the spring of every year filled with water. This is entirely emptied every season by a steam pump, or endless belt run by steam power, before any new work can be commenced in the clay pits.

The old excavations to the northward are usually, and were in 1880, kept full of water through the season. Vegetation grows very rank around these old excavations, and in places not deeply submerged aqueous plants have an average growth.

The vegetable growths in the newer excavations are exceedingly insignificant.

In places where the clay is to be mined the surface soil or loam is removed for utilization. It is no more largely composed of vegetable constituents than ordinary mold, and the subsoil is very largely marl, a mixture of calcareous earth and clay. The loam is about one foot in depth.

Of the workmen attacked nearly every one were Canadians, and slept in two lodges near the works. The two upper stories of the buildings were occupied as sleeping rooms. No difference was seen between the two stories in regard to the liability to attack and severity of the disease in their occupants. The highest sleeping rooms are probably twenty feet from the ground.

The workmen as a body were a hardy class, were to a large proportion new hands, were as cleanly in their habits as previous workmen had been, and no more disposed to intemperance and exposure.

Nothing was observed about the premises of an unusual character, no new growths, no mould on the surface of the ground, no scum on the waters in the excavations or in the canals.

There were no heaps of vegetable matter undergoing decomposition, and the refuse and excretæ were disposed of as in previous years.

What then was the cause?

Everything in and about the yard and in the immediate vicinity afforded only negative evidence of probable cause.

Across the road on the west and across the plateau of meadow and beyond a strip of woodland and across another road lies the salt meadow before described. This meadow (see map), which had been kept flowed to a depth of about two and one-half feet through the year for the previous ten years, was from the middle of July to December of 1880 comparatively dry. No decay of vegetation was observed here.

Is it probable that some decomposition of the organic matter in the soil of the bottom of the pond or meadow, had occurred under the influence of continued heat, or some chemical reaction among the inorganic constituents of same soil, and that from either or both of these decompositions and recomposition, some subtle effluvium was set free, which was wafted through the woodland and over the meadow to the brick yards, there to be inhaled and poison the blood of the workmen, and produce the severe constitutional disturbance which is known as intermittent fever? Or was there some minute vegetation too small to attract attention, some microscopic fungi, mould, mildew or smut that found congenial soil in the bed of former waters and by germination, growth and maturity, fruited sporules entirely invisible to the natural vision, which, carried like the dancing motes in the atmosphere in whichever direction the air currents moved, found most easy transition in the direction of the brick yards, and so, as the germs of disease, found the largest harvest there?

But whatever may have been the cause, the proprietors design during the coming year to provide, if possible, against a second invasion of the unwelcome visitant. The former status of the salt meadow pond will be maintained through the season, all possibly objectionable material will be removed from the vicinity of the yards, all reservoirs of water kept full, the lodges cleansed thoroughly and whitewashed with lime, the beds renovated and the habits of the occupants subjected to a close supervision.

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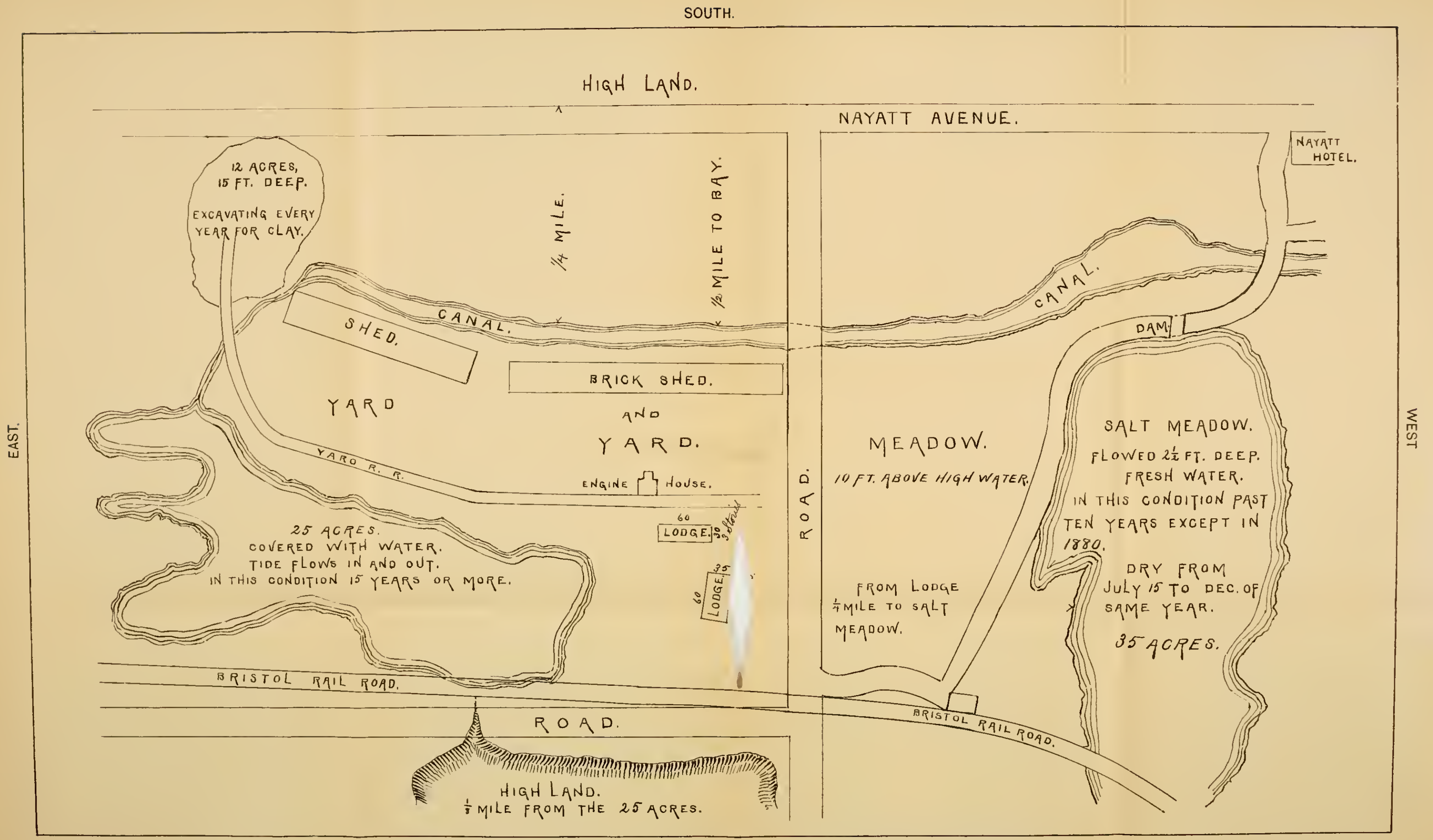

PLAT OF THE PREMISES WHERE THE INTERMITTENT FEVER FIRST APPEARED IN BARRINGTON.

CATTLE COMMISSION.

In the performance of the duties which had, previously to the establishment of the State Board of Health, been delegated by statute to a Board of Cattle Commissioners, the secretary has found employment in more than half of the days of the year.

The duties imposed by law, comprising the investigation of diseases among cattle and other domestic animals; the devising of ways and means for the prevention and restriction of contagious and infectious diseases among domestic animals, and especially such diseases as are largely or wholly fatal in character, or result in partial disablement and consequent loss in value; have a wide range and require a large watchfulness on the part of the officer under whose supervision they are placed.

It would cover too many pages in this report to endeavor to describe even a part of the large number of cases to which the secretary has been called or relate the incidents connected with them, which have come under his observation, a large majority of which when examined were found of very trifling character; but, as it could not be known without a visit and an examination whether a reported existence of some disease among domestic animals was true to name or not, it was the invariable rule to give every case reported the earliest attention possible.

No largely prevalent disease affecting domestic animals has occurred during the year with the exception of the equine catarrhal influenza or "epizootic" amomg horses.

As usual suspected cases of pleuro-pneumonia have been reported, but without foundation. Spinal meningitis among horses has been more than usually prevalent in some sections of the State, and of more than usual severity of form.

A form of disease, in which the first apparent symptoms precede the death of the animal but a few hours, has occurred in several places in the State in localities more or less widely separated. It has been named by veterinary physicians splenic apoplexy, anthrax, the anthracoid disease, &c. So far no cases have been reported as occurring in other animals than horned cattle or the bovine species.

GLANDERS.

The disease among animals requiring the most attention has been, as in previous years, that of glanders in horses. The experience of the past year in regard to the discovery and disposal of animals affected with this disease has been but a repetition of that of other years, an account of which has been given in previous reports of the Board.

The difficulty in detecting the disease in its earliest stages from the similarity of the symptoms to other nasal diseases, with the frequent disposition of the owner upon discovery of suspicious appearances to take measures to hide or remove such appearances from general observation, and especially when the symptoms of the disease are more definitely declared to dispose of the animal as soon as possible in places where the disease will be the least likely to be noticed continues to protract the time when the animal will be reported to the Board. At the same time a large number of suspected cases are reported, which upon examination prove to be only nasal catarrh or some non-contagious, acute or chronic disease of the nasal passages.

The number of cases reported suspected of being glanders and not found such far exceed the number found to be glanders or farcy. The proportion of the suspected cases visited to the proven cases is more than four to one.

The tract entitled "Glanders and Farcy" has been kept in supply in places where horsemen congregate, and has been distributed singly to persons whose occupations or pursuits brought them frequently in contact with considerable numbers of horses.

The whole number of cases of glanders that have come to the knowledge of the Board during the year 1880 is forty-nine.

Of these thirty-two were found in the city of Providence, five in the town of Johnston, four in Cranston, three in Pawtucket, two in Cumberland and one each in the towns of Coventry, Scituate and Smithfield. Several of the number found in Providence belonged in other towns.

Some of the cases mentioned were first seen by veterinary practitioners, and treated (on suspicion of glanders) until the symptoms were sufficiently pronounced, and then upon their advice the owners sent them voluntarily to the horse burying ground provided by the State Board of Health.

Two were found abandoned on the public high way.

A record is kept of all these cases, the time when they occur, the owner's name if known, the place where kept, in town or city, when ascertained, the form in which the disease occurs, *i. e.*, whether glanders or farcy, and the events of killing and burial and by whom.

Persons of means defray the expenses of taking to the burying ground and interment. But there are a considerable number every year who have in possession horses that are glandered, and which are condemned by the Board, who deny ownership of the horses or are too poor to pay for removal and burial, or too irresponsible to trust with the killing and burial themselves, and the expenses are borne by the State.

In the second annual report of the Board there was presented a form of blank return of death of a horse to be filled up by the person at the horse burying ground (Mr. W. E. Barnes) at the burial of every glandered horse found in or within a few miles of Providence city, and to be returned to the office of the Board. The reasons why such returns, with the statements of facts therein made, were desired by the Board are there given. It should also be stated that during the past year the burial of a glandered horses any where in the State within the knowledge of the Board was desired to be reported in the same way.

EPIZOOTIC INFLUENZA.

Late in the month of September there appeared among the horses in the northeastern part of the State, and rapidly extending over the whole of its territory, a disease characterized by a manifestation of much lassitude, great indisposition to active exertion, lessened appetite and increased desire for drink, drooping of the head and disposition to assume the lying position in the stall. In some cases the more severe symptoms were ushered in with chills, and fever in a greater or less degree followed. After three or four days from the commencement of the disease free running from the nostrils was established, the submaxillary glands became swollen, dryness of the respiratory passages and cough followed. In a few instances it resulted in pneumonia. This seemed to be the same disease that appeared in 1872 and swept through nearly the whole country, but was in 1880 considerably milder in former. The malady lasted ordinarily from fifteen to twenty days. Various sequelæ followed, but in a small porportion of the cases only. In Massachusetts, where the disease had previously prevailed, derangement of the bowels was the most frequent sequel; in this State urinary and spinal difficulties and in New York city, where it appeared in November, the principal unfavorable result was a form of purpura hemorrhagica. It is probable that in nearly if not quite every case in which unfavorable results occurred in horses not already weakened by old age or previous disease, that too severe usage when under the influence of the disease was the cause. Before the disease appeared in this State, and for the purpose of giving timely information in regard to the mode of treatment, the following communication was sent by the secretary to the Providence Journal:

THE HORSE DISTEMPER.

The epidemic affecting so large a proportion of the horses in neighboring cities, will doubtless manifest its presence in this section in a short time. Indeed it may have already began its initial work. An inspection of about three hundred horses at the State Fair, Wednesday, showed a large number having symptoms of nasal irritation with unusual dryness or slight discharge from the nostrils, but without swelling beneath the jaws.

There need be, however, no serious apprehensions from the advent of this disease as it has now appeared. It occurs very frequently in a mild form, sporadically (scattered cases), and yields readily to simple treatment, or, what in most cases is better than any medication, partial or complete rest, and spare diet, of cut hay with bran, shorts or other mashes, and chopped vegetables. Cooked food has been used with satisfaction. The inherent recuperative forces of the animal are sufficient in almost every case to throw off the disease.

In the epidemic visitations, like the occurrence of epidemic scarlatina and dysentery in human beings, the disease at times assumes a more formidable character, as for instance the epizootic of 1872. That remarkable epidemic, which commenced in Toronto, Canada, in September of that year, spread with regular and rapid progression to all the cities of Canada, and by midwinter had traveled throughout the United States to the Atlantic and the Pacific, Mexico and Central America. The present epidemic has, however, so far exhibited a much milder type. There has been as yet but little of the extreme nervous prostration and organic derangement that characterized that more formidable epidemic.

Indeed, but for the nervous disturbance, and general manifestation of muscular soreness, the present epidemic might with reason be taken to be simple bronchial catarrh, or nasal catarrh, which sometimes affects a considerable number of horses in the spring and autumn. Its extensive prevalence also makes its character pronounced.

It had been previously stated that in some cases at the very commencement of the disease, "the animal is seized with fits of coughing and sneezing, preceded by languor and followed by swelling of the throat, and in serious cases by fever, with inflammation of the lungs, and sometimes death." It may be added that in some cases, coincident with the disinclination to exercise at the onset of the disease, a slight secretion of a thin, and apparently acrid character may appear within the nostrils, or they may seem very dry, with a yellow hue of the lining membrane. The eyelids will sometimes droop over the eyes, and a free secretion of tears may occur, trickling down the face. The limbs will also seem to be stiff and sore.

Any severe labor during the incipient stages of the disease, will greatly increase the severity of the malady, when fully matured, and thereby endanger the life of the animal.

In addition to what has been said in regard to treatment, it may be stated that the animal should be protected from alternations of heat and cold, should be allowed drink in moderate quantities at frequent intervals, should have well-ventilated stabling, daily or more frequent grooming with the brush and rubbing with the hand, with only gentle pressure over the whole surface of the body; and upon the occurrence of severe fever, or very painful cough, with shortness of breathing, the services of a veterinary expert should be requested.

The first symptoms of subsidence of the disease, will generally be a more copious flow of urine, diarrhœa or profuse perspiration, according to previous severity, a cessation of muscular soreness, and return of appetite.

HOOSE OR LUNG WORM DISEASE.

On the eighteenth of October, the secretary was notified that a fatal disease had broken out in a herd of cattle in the town of Cumberland, and that it was supposed to be pleuro-pneumonia.

In company with Dr. C. H. Peabody, veterinary surgeon, a visit was made to the herd, and the disease investigated. As an account of the post mortem examination, and pathological appearances, the symptoms, &c., is given by Dr. Peabody on another page, only matters not alluded to by him will be previously presented.

The disease with which the animals were affected was (so far as any knowledge can be obtained) entirely new in this State. It has been since ascertained that it had been known to have occurred in several localities in the different States, and in the old countries. In some of these localities, it has occasioned extensive destruction of cattle, and caused enormous pecuniary loss.

It has been known under various names, as hoose, verminous bronchitis, pulmonalis verminalis, and in the vernacular, the lung worm plague.

The worm—supposed at first to be a species of filaria—is a very slender, thread-like animal, looking to the naked eye as much like short pieces of fine white thread as anything; the male from one to one and three-quarters inch in length, the female from two to three and one-quarter inches. The mature female produces a very great number of eggs, which, under the microscope, are found to extend on each side of the alimentary canal, more than two-thirds the entire length of the worm. Each matrix of the eggs appears to be a long tube, in which the eggs are ranged in line in regular order, lying by the side of the stomach and intestines, the coats of which are transparent. It may well be said that everything is transparent about the body of the animal. Under the microscope, the outer investment of the worm, or integument, is seen to consist of two transparent coats or membranes, which move or slide one upon the other when the animal moves with a twisting or vermicular motion, the stomach and intestines, and also the egg matrices, are clearly seen through them, and furthermore, not only are the matrices transparent as before stated, but the shell of the egg, or membrane, that encloses the embryo worm, is also transparent, so that the movements of the embryo worm within the shell are clearly seen through the shell of the egg, the walls of the matrix, and the two movable integuments of the mother worm.

The worm was not considered of a species of filaria proper by Mr. N. N. Mason, microscopist, when put under examination, and Prof. A. S. Packard also, upon being questioned, expressed a negative opinion when the first specimen was presented him and a slight examination made. Prof. Packard was interested in the specimens examined, and upon investigation believed them to be a species of strongyli, the strongylus micrurus.

Dr. C. P. Lyman, the veterinary surgeon connected with the Agricultural Department at Washington, D. C., gave it the same name, and so also did Dr. James Law, professor of veterinary medicine in Cornell University.

A strongylus filaria is a lung worm that infests sheep and goats, a stronfylus elongatus, the air-passages of swine.

The parasite that infests the throat and windpipe of birds, and especially chickens, producing what is popularly called the gapes, is not a species of filaria proper, but is technically called sclerostomum syngamus. It is a worm of less length and firmer texture.

It is perhaps needless to say that the herd of Mr. Jenks, the owner of the diseased animals, consisting of between sixty and seventy head of horned cattle, were all strictly quarantined at once, and the diseased animals isolated. The disease was not contagious in the sense or way of pleuro-pneumonia, or the Texas cattle disease, but could be very readily and rapidly communicated from one to another by taking into the mouth the worm, the eggs or young ova, discharged by the coughing or drouling of the animals affected, upon the grass or elsewhere. Healthy animals, feeding upon the same ground, or brought in contact with the diseased animals for a day or two, would exhibit symptoms of the presence of the parasites in from ten to fifteen days.

It was the purpose of the secretary to confine the disease within the limits of the farm where found beyond peradventure.

The herd was visited on the twenty-fifth of October, by Dr. E. F. Thayer, veterinary surgeon and member of the Massachusetts Cattle Commission, who concurred fully with the quarantine regulations which had been established.

Dr. C. P. Lyman, previously alluded to, also endorsed the necessity of the precautions taken, and treatment pursued.

The following account by Dr. Peabody, previously alluded to, was read before the United States Veterinary Medical Association, and will present more fully the symptoms and treatment:

Mr. President and Gentlemen,—Hoping the following report of some cases and autopsies made by myself on cattle suffering with phthisis pulmonalis verminalis will be interesting, I beg to ask your attention for a few minutes.

In October, 1880, I was requested by the secretary of the State board of health to accompany him to the village of Ashton, in the town of Cumberland, R. I., to the farm of a Mr. Jenks, and examine some cattle reported as having pleuro-pneumonia.

On arriving at the farm we obtained the following history: August 25, 1880, Mr. J. bought, in Brighton, 47 head of calves, said to have come from New York State. On getting a short way from Brighton, some of the calves began to cough. They arrived at their destination on August 29. Three or four days after one calf died, and then shortly after, four or five a week, then three or four a day, until we saw them.

The following symptoms were observed: A cough, short and harsh, gradually becoming hoarse, and finally assuming a muffled sound, was detected, the animals having the appearance of great fatigue. The respiration varied from to 70 112 a minute, and was labored and abdominal, and each breath being accompanied with a slight cough or groan. Some of the calves were constipated, while others had diarrhœa.

In some of them the appetite remained good until 24 hours before death, emaciation gradually taking place. The pulse was weak and irregular. The animals stood with their backs arched; the heads down; the hind legs drawn under the body; the fore feet spread apart, with the elbows turned outwards. Frothy secretions oozed from the nostrils. The coat was staring; the skin shriveled; the eyes dull, and in a few cases there was an abundant discharge of saliva, in which was found contained filaria and their eggs, which had been coughed up. On examination of the thorax by auscultation, there was a peculiar, in some places a crackling sound; in others a loud wheezing, but no complete loss of respiration over any part of the lungs. On percussion, an abnormal resonance was observed over the greater portion of the lungs. The temperature ranged from 103 to 106 F. The duration of the disease varied from 15 to 20 days.

Having obtained the history of the disease, we proceeded to make the post-mortem of some already dead, and of some destroyed for that purpose. The description of the lesions found in one will, with slight exceptions, answer for the whole.

The first animal examined had been dead about 24 hours. In the thoracic cavity, we found an abnormal amount of serum; the membrane lining it was healthy, and the pericardium without patches of lymph or false membrane. The heart was filled throughout with a hard coagulum. The extended surface of the lungs was paler than normal, its tissue emphysematous in places, and slightly mottled in others. Upon cutting through the large bronchiæ we found a large number of thread-like worms, from ¾ of an inch to 1½ inches in length, and in knots or masses. These were immersed in frothy mucus, which seemed to fill the air-passages completely.

These worms were found in every branch and ramification of the air-passages, to their utmost extremity. A few lobules seemed congested, and in some places the capillary blood vessels were broken down, and slight hemorrhage had taken place, small clots of blood being found in the bronchial tubes. It was noticed that all the tissues of that animal, as well as those of such as were killed, had a sourish smell. The lymphatic glands of the throat and abdomen were enlarged; other abdominal organs healthy.

There was no treatment pursued with the calves, beyond slight fumigations. The other cattle were treated by inhalation of fumes of burning sulphur. The internal treatment consisted of turpentine, iron and gentian, after they had been removed from the place where they had been kept. I have examined the lungs of two of the old cattle destroyed since my first visit, and after fumigation, and have not been able to find any of the filaria.

Allow me now to detain you a few moments longer in order to allude to the size of the eggs of these worms, and to say a word as to the tenacity of life of the embryo. The specimen which I am going to present, I owe to the kindness of Mr. Norman N. Mason, an excellent microscopist, of Providence, R. I.. Upon measurement, this gentleman found the egg to be from 1-300 to 1-500 of an inch in diameter. In conclusion, and to show you how long after the animal is destroyed, and no matter what poisonous preparation is used, life remains in the embryo, I will state that the lungs, from which these specimens were obtained, were sent to the office of the State Board of Health on a Tuesday, and the examination made on Thursday. Some of the filaria were then soaked in picric acid and glycerine, from 30 to 40 minutes, and then placed under the microscope, when the embryo could be plainly seen moving in the egg.

EXPENSES OF THE BOARD, 1880.

Board of Health and Vital Statistics.

Books, printing returns, circulars, &c.	$46 79	
Paper, twine, wrappings and office supplies	23 53	
Postage stamps and postal cards	28 00	
Expressage and telegrams	3 85	
Heating apparatus, fuel, cleaning, &c.	23 01	
Traveling expenses of members	52 00	
Chemical analyses and transportation	15 00	
		$192 18

Cattle Commission.

Advertising	$29 39	
Examination of stables and other places	12 00	
Veterinary fees	80 25	
Transportation and service of agents	19 50	
Appraisers at Cumberland	15 00	
Expressage, preparations, &c.	5 00	
C. H. Wheeler, burials	3 00	
W. E. Barnes, removals and burials	69 00	
Books and periodicals	4 20	
Circulars, notices, &c.	5 80	
		$243 14
		$435 32

BOOKS RECEIVED, 1880.

1	vol.	R. I. Manual from Secretary of State	1879–80
1	“	Mass. Report Board of Health, Somerville, pamphlet	1878
1	“	U. S. “ Supervising Surg. Gen. of the U. S. Marine Hospital Service	1878–79
6	“	Conn. 2d Annual Report State Board of Health	1878–79
1	“	N. J. “ “ “ “ “	1879
1	“	Missouri “ “ St. Louis Public School Lib., pam	1879
1	“	“ “ “ Board Public Works, St. Louis, pam	1879
1	“	R. I. Providence “ on Sewerage, J. H. Shedd, pam	1874
1	“	“ “ System of Sewerage, pam	1874
1	“	“ “ “ “ “	1876
1	“	Conn., New Haven, 7th Report Board of Health, pam	1879
1	“	R. I., Rep. State Board of Education and Com. Pub. Schools	1879
1	“	D. C., Rep. Health Officer of District	1879
1	“	Wisconsin Rep. State Board of Health, Fourth	1879
1	“	R. I., Second An. Rep. Providence Pub. Lib.	1879
1	“	Mass., Compend. of Census, from Hon. C. D. Wright	1875
2	“	“ Reports of Statistics of Labor, from Hon. C. D. Wright.	1878–79
1	“	“ History Bureau of Statistics of Labor, “ “	1833–76
1	“	Penn., Report Board of Health, Reading	1879
1	“	“ “ Health Officer, Vital Statistics, Philadelphia	1879
2	“	Mass., Nathan Allen, M. D., Lowell, pam	
2	“	N. C., Doc's State Board of Health, pam	1879
1	“	Cal., Report of Vital Statistics, Oakland, pam	1879
1	“	N. J., “ Board of Health, Hudson County, pam	1879
1	“	Mass., 11th Report State Board of Health, 6 mos.	1879
1	“	“ 1st “ “ “ Lunacy and Charity	1879
1	“	“ 17th “ Trustees and Supt. City Hospital, Boston	1879–80
1	“	Alabama, Transactions Med. Association of the State	1880
1	“	Mass., 1st Annual Report of State Board of Health, Papers on Health	1879
1	“	U. S. Navy Dept., Hygienic and Medical Reports	1879
1	“	N. Y., 4th Annual Report Board of Health, Utica, pam	1879
1	“	N. Y. City, Sanitary Reform Soc., 1st Annual Report, pam	1880
1	“	Cal., Report State Board of Health	1879–80

MEDICAL CORRESPONDENTS.

1880.

Dr. M. P. Arnold,
" C. A. Barnard,
" J. C. Budlong,
" Otis Bullock,
" A. B. Briggs,
" H. J. Bruce,
" E. G. Carpenter,
" G. L. Church,
" E. P. Clark,
" I. B. Cowen,
" H. C. Crandall,

Dr. J. H. Eldridge,
" D. M. Edwards,
" G. R. Fisher,
" L. F. C. Garvin,
" E. V. Granger,
" G. B. Haines,
" G. D. Hersey,
" G. W. Jenckes,
" J. Kenyon,
" A. A. Mann,
" J. M. Merchant,
" C. E. Maryott,

Dr. R. F. Noyes,
" A. Potter,
" G. B. Peck, Jr.,
" F. A. Rankin,
" A. A. Saunders,
" A. G. Sprague,
" F. B. Smith,
" W. J. Smith,
" G. H. Stanley,
" E. P. Stimson,
" J. O. Whitney.

HEREDITY,

BY

MISS A. E. TYNG, M. D.,

Member of the R. I. Medical Society, The American Medical Association, etc.

HEREDITY.

The greatest study of human life involves the relations of man with the history of the past and the future. He is the result of that past and the progenitor of future generations.

"Heredity is a biological law, which itself results from another law—that of the transfer by generation of the attributes of physical and mental life, and the laws of generation govern everything that lives—the plant as well as the animal and man. There is not one part of the domain of life subject to the laws of heredity and another exempt from them."*

Heredity is a positive law regulating all physical, mental and moral development. The apparent exceptions, which are very rare, will be found not to be such when the subject itself is better understood. The inheritance of any given trait may come from either parent or from both, thus modifying it or producing a variation. It has been found that a check may thus be put upon variation when it is desirable to cause a reversion to the normal type of a certain family, the original characteristics of which, though apparently lost, were really lying dormant.

On this subject much has been written.

Its influence was recognized by Aristotle, and yet to this day little is generally known, still less acted upon or applied to the daily life of mankind; its laws are less observed and followed than those which result from other scientific studies.

Farmers and stock raisers know that heredity is of importance, and great care is taken to improve the breed. They know that the same or similar laws govern the parentage of men as of animals, but how seldom will the same men think of what they may entail upon their children—deformities, ill-health, physical and mental, traits of character or tendencies to crime. The mental as well as the bodily conditions caused by the good or ill conduct of individuals may be handed down to their offspring, thus influencing them for good or ill, and as children may inherit from great grandparents, it is impossible to say where the end may be. Every child inherits something from its ancestors, it may not always be observable in childhood, but may develop at puberty, or be drawn out by the vicissitudes and discipline of life. The recognition of this has given rise to the sayings, "The child is the father of the man"—"The society of the future is cast in the mould of to-day," and similar others.

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*Ribot, "Hereditary transmission."

These are well admitted and well-known facts, and have been for years—why are they not more acted upon and counteracted as mechanical laws are and thus made useful? People believe in (because they *see* them) the physical resemblances to parents. Next is needed a belief in the hereditability of morals, virtues and vices. When this is felt by each would-be parent with a sense of his or her own responsibility therein, there will be some hope of the next step, namely, a belief in the power to modify and counteract by marriage and by judicious physical and moral training.

By studying the laws of psychological heredity man may employ them for the intellectual and moral improvement of the race, thus adapting to his own needs the forces of nature. Spurzheim wrote half a century ago, putting forth the idea that the psychological constitution of parents being known, the intellectual character of children may be foreseen, and by employing similar means as those adopted for animals we could create races or families of able men. And he who shall convince the world of the importance of the laws of heredity and induce people to control their conduct and lives accordingly, will contribute more to their improvement than all institutions of education. "A conscious selection carried on for a long time would have a good result, for law must at last carry the day."* "Compare the almost naked savage, his brain filled with images and void of ideas, his rude speech, with the man highly civilized, highly refined, initiated into all the niceties of art, literature, science, &c. The distance between these two extremes appears infinite, and yet it has been traveled over step by step."*

The study of embryology has shown that the child is derived from both parents, and has the characteristics of both, and if there could be a perfect correspondence of the physical and mental constitution of both parents there might be a perfect child; but these conditions are the results of the previous inheritances of each parent which have thus formed their physiological, psychical and moral characteristics. One parent may have stronger transmitting power than the other, and this preponderance on one side is known and made use of by horticulturists and stock raisers. Cases occur where the influence of one parent seems to have been lost, but it is shown to be only dormant, to be brought out in another generation, and thus the idea of correspondence or equality of action on the part of both parents is again apparent and realized as far as possible. Facts showing cross heredity, that is, from father to daughter, then to her son, are more numerous than those of direct descent to the same sex, so that the third generation is more like the first, and this takes place more frequently with the moral than the physical characteristics.

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*Ribot, "Heredity transmission."

Dr. Whitehead gives the following list of hereditary diseases: Scrofula, rachitis, phthisis, cancer, mania, epilepsy, convulsions, apoplexy, paralysis, asthma, gout, rheumatism, syphilis, erysipelas, sycosis, quinsy, gravel, cataract, deafness and diseases of dentition. More modern physicians, having the advantage of greater medical knowledge, will differ in opinion as to some of the last of this list, but as there can be no doubt about most of them, it remains formidable enough. "A particular temperament or disposition prominently developed, and especially if existing simultaneously in both husband and wife, will be likely to be reproduced, still further exaggerated, in the offspring, and thus that healthy balance, so necessary to the harmonious discharge of the nervous and circulatory functions is at length destroyed, merging itself in incapability and disease."*

Dr. Whitehead in his list has not mentioned alcoholism, perhaps because he considered it more a cause of disease than a disease itself. It should be mentioned not only because of its great evil effects, but because the taste and craving for it is inherited, and may continue through several generations. "While probably there is much less alcohol used among the intelligent classes to-day than there was fifty years ago, we must bear in mind, first, that society to-day is reaping the harvest of its use fifty years ago in the form of nervous systems inclined to disease, and second, that there is an increased use of it among the young."† What will be the result of this increase on another generation fifty years hence? Alcoholic intoxication and its effects have attracted much attention for some years. It is now recognized as a hereditary and transmissible disease, and hospitals are established for its cure. As its existence shows nothing but evil to each victim, to their issue and to society, there is no more crying need to which Christian work should turn.

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*Whitehead, "Hereditary transmission of disease."

†Dr. H. P. Stearns, Conn.

Morel, a French authority on questions relating to insanity, states, "that the whole nature of the descendants of drunkards is often depraved." They are remarkable for apathy, indecision, defective moral sense and many nervous diseases which are transmissible. Children conceived when the parents are in a state of intoxication show intellectual feebleness, which if continued in another generation degenerates into idiocy. This opinion is held by Ribot, Maudsley, Dr. S. G. Howe and many others, whose words are well worth quoting and studying. Morel gives the history of one family which Maudsley quotes* as a typical example of the course of degeneration proceeding unchecked.

First generation.—Immorality, alcoholic excess, brutal degradation.

Second generation.—Hereditary drunkenness, maniacal attacks, general paralysis.

Third generation.—Sobriety, hypochondria, lypemania, homicidal tendencies.

Fourth generation.—Feeble intelligence, stupidity, mania, idiocy and probable extinction of the family.

In a paper on hereditary diseases of the nervous system, Dr. S. Rogers, of New York, remarks: "It is a grave fact that the parent who destroys the organization of his nervous system by alcoholic excesses, is exceedingly liable to transmit to his offspring a disordered nervous system, which manifests itself in almost any form that nervous diseases take," and also, "There are no more striking or melancholy examples of degenerate brain organization transmitted to offspring than that produced by alcoholic excesses."

The tendency of alcoholic inheritance to weaken the procreative powers is spoken of by several authors. "We do not hesitate to proclaim, as a law of universal application, that three successive generations of inebriates will leave no issue. The third generation may have children, but not one of these will be reared to manhood."†

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*The physiology and pathology of the mind."

†Report of the New York State Inebriate Asylum, 1864.

"Not one of the transmitted wrongs, physical or mental, is more certainly passed on to those yet unborn than the wrongs which are inflicted by alcohol. Many diseases engendered by it in the parent are too often stamped in the child, while the propensity to its use descends also, making the evil interest compound in its terrible totality."*

Dr. S. G. Howe, in his report on the statistics of idiocy in Massachusetts, states that the habits of the parents of three hundred idiots having been learned, one hundred and forty-five, or nearly one-half, were found to be habitual drunkards. In one instance, in which both parents were drunkards, seven idiotic children were born to them. Dr. Howe also says that "the children of drunkards are deficient in bodily and vital energy, and are predisposed by their very organization to have cravings for alcoholic stimulants. If they pursue the course of their fathers, which they have more temptation to follow and less power to avoid than the children of the temperate, they add to their hereditary weakness, and increase the tendency to idiocy and insanity in their constitution, and this they leave to their children after them."

Knowing all these evils, it is not to be wondered at that the temperance question finds such warm partisans, albeit there have been fanatics; better so than to keep silent, for those who can prevent even one case by their remonstrances and fail to speak, are cowards and cannot be considered blameless.

Heredity is especially observable in nervous temperaments and diseases. Dr. Hammond considers them more transmissible than any other diseases. Americans can be distinguished among all nations for their nervous type; it is shown conspicuously in their restless manners. Where the brain and nerves predominate neuralgia in all its forms and other nervous troubles are to be expected. These diseases are apt to limit themselves to the nervous system, although they transmit themselves in different forms, as epilepsy or chorea in a parent may appear as insanity or imbecility in the child. A nervous inheritance may show itself early in life by a restless nervous temperament, or may need some exciting cause to develop it, and this development may be delayed or even prevented by wise bodily and mental training.

"Persons are daily coming into life to pass their days until death, from beginning to end, below the plane of an average nerve nutrition. They seldom present us with localized, destructive disease, but from first to last lack an average volume of nerve power and endurance, whether mental or physical, and joined with this condition of things, there is undue sensibility; the energy of nutrition is low and recuperative power is feeble. Such persons are frail and puny, they are easily exhausted, usually thin and pale; if females, they are prone to hysteria, to headaches, irregularities in the action of the circulatory organs and neuralgia. They are habitually over-taxed, and in most cases they are to a degree practically inefficient in the affairs of life. They are never well long at a time, seldom seriously ill, but are prone to the myriad slighter forms of neuroses of sensibility, general or special or emotional."* This is given as a type of "hereditary neurasthenia;" it is a picture which will be recognized by every reader as typical of a mild form of nervous inheritance. These cases should not give up, tamely submitting to such a condition, wretched themselves, an infliction upon their friends; a struggle should be constantly carried on against it. It is necessary to adopt such an occupation and course of life as will avoid exhaustion, but absorbing enough to prevent the thoughts from dwelling upon the myriad slight ailments.

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*B. W. Richardson, M. D., "Diseases of Modern Life."

Those who study hygiene have found that man has great power not only to control disease in his surroundings, but has a direct control over himself to prevent and modify diseased conditions. The more he studies these subjects, the more important they become to him, the more easily he understands the various problems which he daily meets in life, and the more he becomes convinced that man has greater control of his health than was formerly thought possible. It is better to be born with will-power (or to learn to cultivate it) to resist disease, than to be helped or cured by others.

"A judicious course of physical and moral training may prevent the development of insanity in a person not too strongly predisposed thereto—and many cases recorded as illustrations of the force of heredity might never have been written had this fact been sufficiently appreciated. Study the weak points in the character, watch the first dawn of conscience in them, or create such by persevering efforts at moral, religious and intellectual education." †

"It seldom happens that a morbid or evil element in the entailed estate of nature can be directly eliminated, but it may be starved and crippled, and finally destroyed by repression and exhaustion. We can only eradicate special disease by the cultivation of special health. It is not enough to keep an inherited defect or evil tendency in abeyance, some healthful quality or property of the nature should be encouraged to overlie and restrain it. Diseases and morbid tendencies do not die out by virtue of neglect alone. They are only to be destroyed by the cultivation of other characteristics of organic form or function; of 'nature' or 'habit' which have antagonistic or incompatible tendencies."*

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* J. S. Jewett, M. D., "Journal of Nervous and Mental Diseases, January, 1880.'

† "Hereditary influence on mental disease." J. J. O'Dea, M. D. New York.

Hitherto most of what has been written on heredity has been devoted to tracing from the past—an exceedingly interesting method of studying history—but it is time to make use· of these studies, to develope the future from the facts thus gathered. Especial attention should be directed to this idea of restraining a morbid tendency; if instead of looking backward along the line of descent to find excuse for the short-comings in hereditary traits, we also looked forward to see how we can avoid transmitting such traits or taints to the succeeding generation, the result would develope some profitable ideas upon the physical and moral training of the young, the effect of which could not but clearly show improvement.

The first, the most important and decided means of avoiding such transmission is the modification of it which would be produced by marriage into a family in which there was no such taint or tendency, or better still, in which there was a constitution directly the reverse. If two persons marry, in each of whose family there exists intemperance, nervous diseases of any sort, or consumption, there can scarcely be expected any other result than offspring with these same diseases in aggravated forms or too weak to be reared to adult age. The same may be said of nervous or bilious temperaments; of deceitful natures and ugly and hot tempers—for these latter may become the nurseries of criminals. A conspicuous and well-known example of this is to be seen in the Pomroy boy, in Massachusetts. These are all marked features, easily distinguished, easily traced. To avoid the complications of them requires an amount of study scarcely to be expected before marriage, until the future *rights* of the unborn generation shall be more fully recognized than now. Burdach says, "When parents have a dislike to one another they beget ugly forms, and their children are less lively and vigorous." The same result may often be traced through maternal impressions during pregnancy as a result of anger and dislike on the part of either or both parents, to the unborn child. The theory has also been held that the parent who transmits the physical also transmits the moral resemblance.

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* "Mental and physical inheritance of children." J. M. Granville, M. D. England.

When a marriage has occurred without any of these considerations, what is to be done in regard to any inheritance the child may have which will not be an improvement on the stock? The ancient Egyptians and the Spartans acted upon the idea of the need of ante-natal education, and the mother's power in influencing it; they took care to surround pregnant women with beautiful things, pictures, statuary, &c. To this should be added, after birth, cheerful, healthful surroundings, an example of wise deportment on the part of the parents; a discipline and training in self-control; occupation, at *all ages,* suitable to the age and physique of the child, and which shall so occupy the thoughts that there shall be no space for apathy, idleness, or infirmity of purpose. Then the school education should be adapted to development in the needed direction on the same principles.

Much advance has been made also in the study of physiology, both by scientists and the community at large. These two—physiology and heredity—must work together for greater improvement in hygiene and sanitary law.

Every physician knows that lives are saved, sickness cured, pains and deformities relieved now, which could not have been so saved, cured and relieved fifty years ago. Part of this is owing to advance in medicine, surgery and chemistry, a still greater part to advance in sanitary matters. The people could help immensely, could save themselves pain, trouble and expense, by making sanitation combat inherited defects. Although it has been said that too much attention in sanitary matters has been given to the external surroundings, to the neglect of the physical organization, yet as these external surroundings have a strong relation to the present physical conditions, they must give a direct and decided aid to the next generation by the improved health and strength given to this, even in delicate families. That such weak families have a tendency to die out, is thought to be an advantage. It may be, if we consider only the desirability of a strong race of men, but history gives indications that a scientific mind may dwell in a weak body, and so a great good be given to the world in spite of inherited physical weakness. Therefore, instead of letting the weak die out, they should be strengthened and improved. Where it is simply weakness, let them marry into very vigorous and long-lived families. But in the case of those well-known incurable, inherited taints, as insanity, consumption, cancer, syphilis, let us pass *laws,* if necessary, to prevent marriage.

If women also understood these laws of the transmission of diseases and vices through themselves to their offspring, would they marry men of whose lives, or of whose ancestry, they knew nothing? They should be taught this, and also be made to feel the responsibility of parents therein, and not to consider that a bad child is an infliction, or a discipline sent by a just and all-wise God. They should realize that on them depends the regeneration of the world, the welfare of society in the future, for children are stamped before birth with tendencies for good or for evil. The children thus burdened with their parents' sins and their consequences, have a harder struggle in life, and if they lack either the knowledge, desire or power to throw off the burden, it is handed down to the next generation, entailing upon it an increased physical weakness, and a consequent apathy.

This should be repeatedly taught, set before the eyes of all, and that no one may shield himself behind the fact of hereditary taint, the idea should also be constantly and carefully inculcated, that by judicious physical and moral training, suited to each case, the inheritance may be counteracted, or its full development prevented—thus lessening the burden handed on to the next generation, who in their turn, carefully following a similar training and care, and having the further advantage of the modification which a suitable marriage may bring, may totally eradicate the family inheritance.

HOUSE DRAINAGE.

BY THE SECRETARY OF THE BOARD.

So large a proportion of the families in the State of Rhode Island live in houses having connection by means of soil pipes, water and sink pipes, with sewers, underground drains and closed cesspools, that it would seem scarcely possible to call public attention too frequently to the dangers that menace so large a percentage of the people.

It is not the object of this short paper, to point out the dangers arising from the introduction into the house or work-room, of the poisonous gases set free from decomposing excretæ, or the greasy, soapy, and vegetable and animal refuse of the kitchen and sink, undergoing decomposition and volatization, strewed along and adhering to the inner surfaces of the pipes, or accumulating in larger masses of putrefaction, in the sewers, closed cesspools, or sluggish underground drains.

Nor is it designed to discuss in any measure the questions appertaining to sewers or sewerage, but simply to allude to methods by which the apartments of the house may be protected from the inflow of poisonous gases, malodorous or odorless.

The illustrations employed to give a clearer conception of the plans set forth and apparatus recommended, are from electrotypes kindly loaned by C. E. Philbrick, Civil Engineer, Boston, Mass., and are those recently used to illustrate a publication of the lectures delivered by him, before the School of Industrial Science at the Massachusetts Institute of Technology. This compact and concise work* ought to be in the hands of every intelligent householder. Upon the questions of ventilation, sewerage and house-drainage, the principles are tersely stated, the essential points promptly taken up and clearly treated, the methods that seem to promise the best results are presented and explained, without any approach to verbosity.

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* American Sanitary Engineering, 1881.

This paper is in no sense designed to be taken as original in the points presented, and free use may be made not only of the ideas but perhaps of the language of the author alluded to above. Any repetition of suggestions and quotations from former reports of the Board, may be made use of as occasion for the same shall occur.

OUTSIDE OF THE HOUSE.

To begin at the foundation of the house, there must be a main drain to carry the flowage from the house to the sewer or cesspool. Such drains are shown at the bottom of Figures 1 and 2. For security against settling of the ground, or foundations of the building when running through it, or changes that result from freezing of the ground through which the drains run, and other sources of danger to earthernware or stoneware pipes or drains, it is better in the first place to procure iron drain pipe of proper size and thickness. Not that iron pipes will allow negligence in the placing or the packing underneath and around them, or in securing a fairly solid foundation for the house, but that it will bear a much greater strain in every direction than stoneware, and so avoiding many breaks to which the more brittle drain is liable, it gives a fuller assurance of safety, which of itself would be worth the additional expense.

But of whatever material, the drain pipe must be smooth inside, of sufficient calibre to carry along freely all the wash of the house, and if connected with rain-water pipes from the roofs, should be large enough to deliver the flowage from them also, without backing any of the contents into sink or soil pipes. A four inch pipe will answer all purposes for ordinary household use, and allow of flushing or washing out with rain water in ordinary quantities. The sections of the drain should always be jointed with lead.

It hardly need be said that the outside and under ground drain, should have sufficient inclination to enable thin sewage to flow with considerable rapidity, and that nothing should go into it from the house that would not pass through an ordinary strainer in the sink. And it should not be forgotten that where one drain enters another, it ought not to be at right angles but at an inclination or oblique direction, and with what is called a Y branch.

As gases accumulate in all sewers, cesspools and drains, and by passing up through drains and sink or soil pipes into the warmer at-

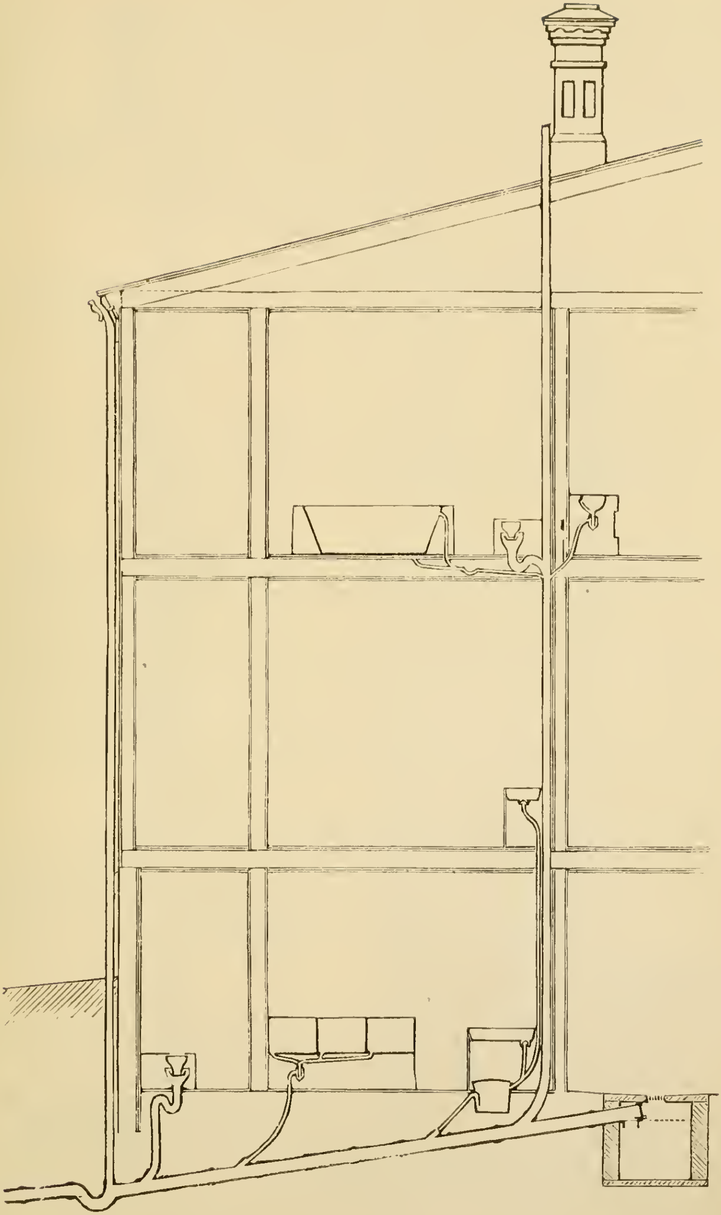


FIGURE 1.

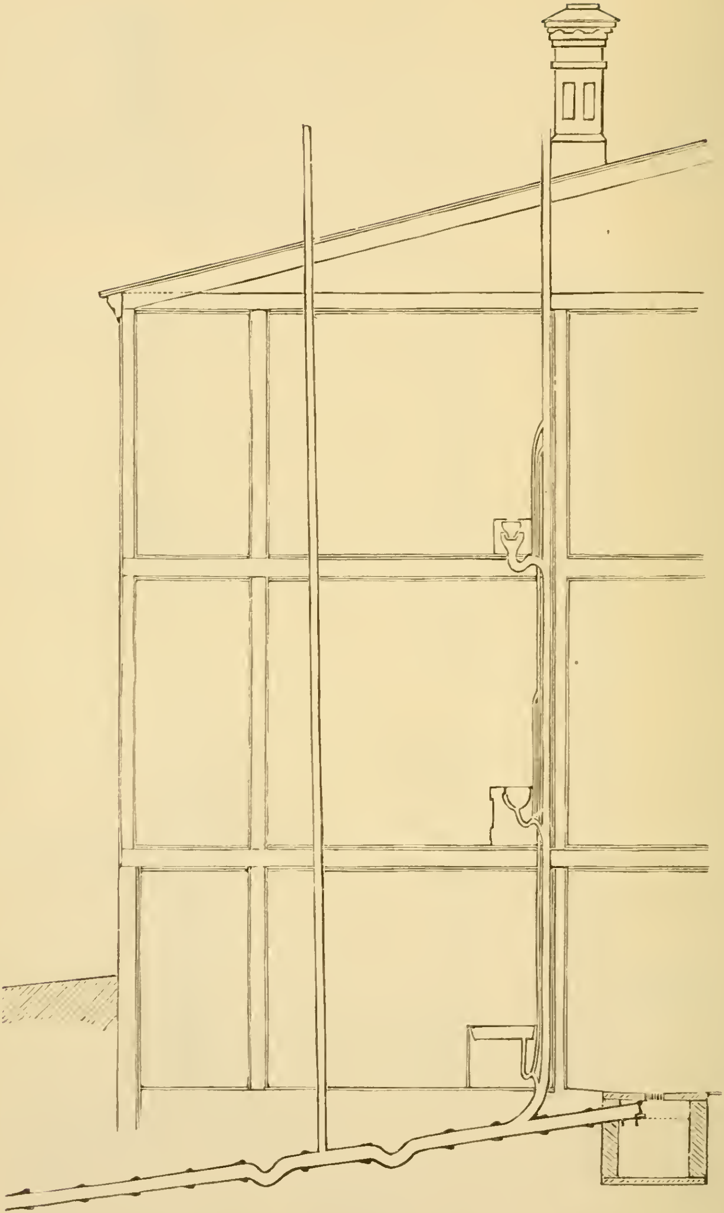


FIGURE 2.

mosphere of the buildings they drain, various means have been devised to prevent this upward flow. Among the first devices was what is called a trap, which is simply a bend in a tube, or section of a drain or pipe in the form of a half circle or that of the letter S. Illustrations of the different forms are shown in Fig. 1, at the bottom of the left hand side, and in Figures 3 and 4.

Fig. 3.

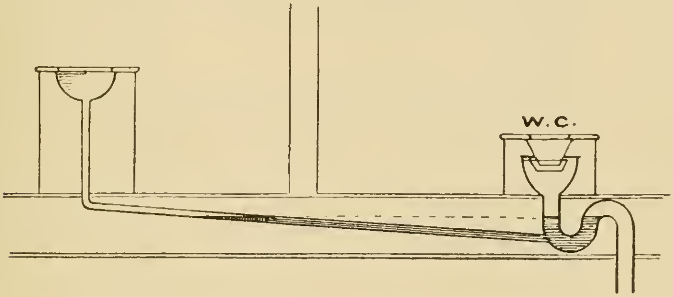
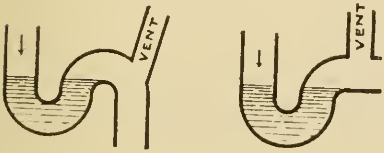


Figure 3 represents a faulty arrangement of pipe, which will be considered on another page. It will be seen that the design is to have a place in the drain or pipe always full of the flowage, and in such a way that as new flowage runs along, it displaces the contents of the bend or trap, pressing the successive fillings forward until all has passed, and still leaving the trap full every time. To accomplish this object, the outlet from the trap into the drain or pipe beyond the trap in the direction in which the fluids run, must be with a short bend higher than the inlet into the trap, or else the bend must be nearly a quarter of a circle below the level of the straight pipe. See Fig. 1, at the left hand at bottom; also see Fig. 2, where there are two bends in the outside drain, which were designed to represent traps, but they do not constitute traps, because the bends are not deep enough.

Fig. 4.



S Trap.

The fluid or semi-fluid contents of the trap is called the seal, and to a very considerable extent does intercept the passage of gases. When a trap is emptied of its contents, which sometimes occurs from suction, (syphonage,) as when a vacuum is produced below it, or a large quantity of fluid is forced into the drain below or through the trap suddenly, and especially if there be obstruction above; and sometimes from being blown out by condensed air forced down suddenly and rapidly by external pressure, the seal is said to be broken, and then offers no obstruction to the free passage of the gases. The traps when sealed, however, do not *wholly* intercept the flow of gases, as the fluid contents of the traps, or seals, absorb moderate quantities, and especially when condensed by a strong pressure from below; the absorbed gases are then set free by the agitation of the seal from the currents of the flowage to some extent, and by slower elimination at the upper end of the trap or seal, because of their lighter specific gravity.

It is now a rule that there should be two traps in the outer main drain, and a ventilating pipe between them, which should extend above the roof of the building. See left-hand ventilating pipe in Fig. 2, between what was designed to represent two traps. By such an arrangement, it is supposed that all the gases collecting below the ventilating pipe will be entirely discharged, because the obstruction of the second trap would divert the flow upwards through the ventilating pipe.

Wherever cesspools are the only receptacles of house drainage, and not very near the building, the use of the outside ventilating pipe might be dispensed with, by providing free ventilation of the cesspool, and fixing one trap not far above the outlet of the outside drain into the cesspool. But wherever the drain may lead, one trap at least should be above free ventilation, and be itself accessible for occasional examination, by an opening called a manhole. (See Fig. 5).

"In laying the house-sewer or outside drain too much care cannot be taken to secure air and water-tight joints. They should resist alike the escape of the sewerage into the surrounding soil, the entrance of subsoil water, and the minute rootlets of trees and plants, which in search of moisture seek out and force themselves through the smallest apertures in drains and sewers, thus causing the sediment to collect, and finally choke up the sewer."*

Second Report State Board of Health, R. I. Page 279.

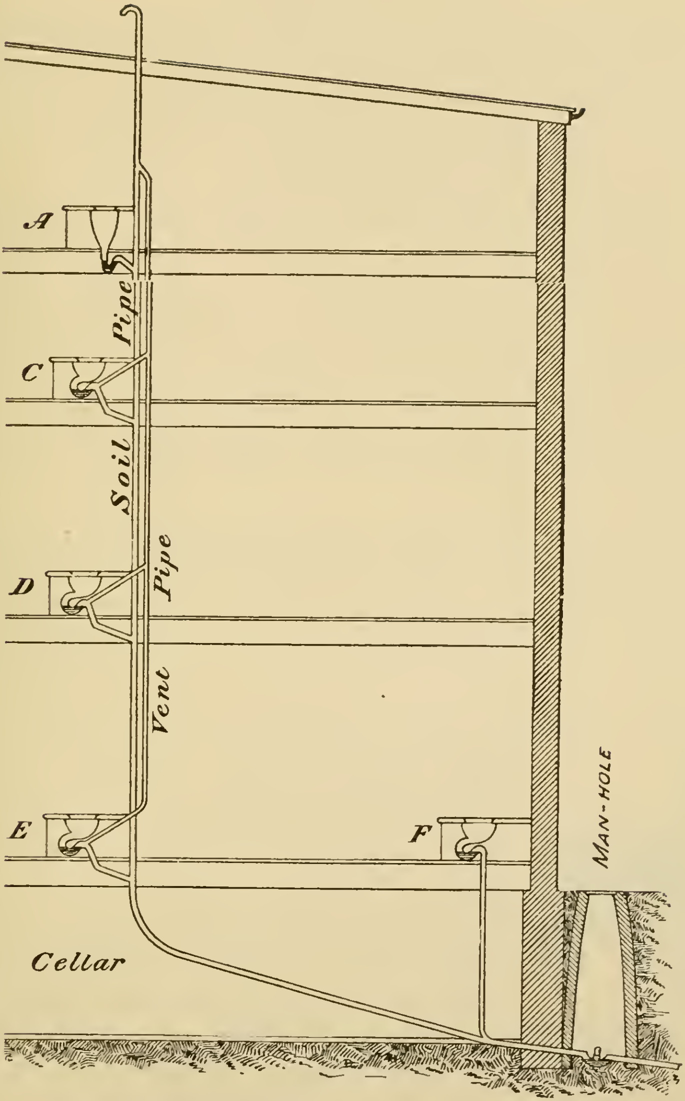


FIG. 5.

INSIDE OF THE HOUSE.

"Drains within the house walls demand more care and skill than the drains outside. In the latter case the soil has certain absorbent powers. combining chemically with the products of decomposing filth, or holding air in its pores for the oxidation of its noxious compounds, which are thus rendered innocuous. Moreover, the poisonous influences within the walls are more likely to be absorbed by and act upon our systems through the lungs than if out of doors, where they are diluted more or less by the outer air."*

The above statements are settled facts beyond controversy, and cannot be too strongly impressed upon the minds of those who occupy houses in which any lengthened system of sink pipe or waste pipe drainage is constructed, and more especially if soil pipes are added thereto. It will be understood that by waste pipes are meant pipes that carry only waste water from wash basins and bath tubs, and by soil pipes those that carry away the excretæ and wash of privy closets and urinals.

In the plumbing of a house, it frequently happens that the basement or kitchen sink, wash bowls, &c., can be readily connected with the outside drain (see Fig. 1). With a good sized ventilator outside the house, running to the eaves trough, and above one trap as in Figure 1, and at the centre or farther corner of same side a large inside drain pipe extending above the roof, as seen also in Fig. 1, and especially with traps of approved form, as the Adee traps (see Fig. 7), it would seem that all gases must be most effectually excluded from the rooms. It must be admitted that such an arrangement would practically afford a very large degree of security. There might, however, be an elimination of putrescent gas from the adhesion to the sides of the sink pipes of greasy, cheesy, gelatinous and starchy washing of pots, griddles and platters, which, remaining in the pipes above the outside main drain and which, by the simultaneous descent of a rapidly falling column of rain water in the outside eaves through ventilator, as represented at left hand of Fig. 1, and an equally rapid descent of waste water in the inside drain, as shown at right hand of same Fig., would be blown through the ordinary S trap without vents, or the D

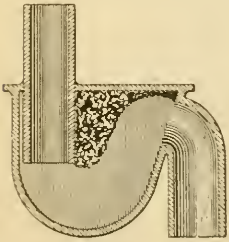


FIG. 6.

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*American Sanitary Engineering.

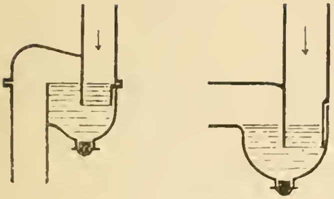

FIG. 7.

trap (see Fig. 6), or perhaps even the Adee trap (see Fig. 7). It will be seen that in such cases the outside ventilator should not be connected with the eaves trough, or if so connected there should be vent pipes (see Fig. 4) to the traps, leading by some arrangement to the inside drain or to the outside atmosphere.

It is better to have a single inside drain for all the drainage of the house, and which shall be not only a drain, but by extending through the house and above the roof, constitute also a most effectual ventilator (see Figs. 1, 2 and 5).

This inside drain and ventilator should be of the same, or nearly of the same size as the outside drain. It should also be smooth inside and have well leaded joints, with the lead flowed in and tamped. A four inch drain is of sufficient size for a large household, and is the best size for a small household. It is always best to have all the sinks, set bowls, bath tubs, water closets, &c., as near the upright inside drain as possible, (see Fig. 5) so that the pipes leading to the inside drain may be as short as circumstances will permit. The object is evident. The fall from the sink or apparatus to be drained should be such as to give the pipe an inclination sufficient for rapid flow of contents and open into the inside main drain in an oblique direction, so that no flowage from above will be driven into the pipe while descending.

Sometimes a pipe from a bath tub or wash bowl has been laid below the floor, running the length of a room or perhaps two rooms, and connecting then with a sink or soil pipe trap (see Fig. 3). It is needless to say that such an arrangement would be exceedingly defective by allowing a backward flow and deposit of water closet excretæ, or the dirty washings of the sink.

The waste and soil pipes may be of lead of good quality, smooth inside and of sufficient thickness to insure stability. This material by its flexibility, allows of bending in conformity to the circumstances of the location, and might thereby be a source of some danger from being allowed to run at too great a length and subjected to too frequent bends, by which the flowage would be returned and adhesion of waste material to the sides be facilitated.

Surmounting every waste, sink or soil pipe and connecting with the wash basin, sink, &c., a sufficient trap is indispensable. Further suggestions in regard to traps may be in order. The purpose of intercepting the inflow of noxious gases, was stated at some length when the subject of outside drains was considered. It now remains to allude to some of the different kinds of traps, their characteristics, adaptation to purpose, fitness and defects.

The first and most frequently used is the old S trap previously alluded to (see trap. of bowl letter F, Fig. 5). The defect of this trap is that it does not wholly exclude the inflow of gases. This may occur in a small measure from the absorption of gases by the seal (or contents of the trap) and eliminating the same from the inner surface. It may give free passage to noxious gases by being emptied, *a.* by evaporation of the seal, *b.* by syphonage or suction when the first connecting pipe below the one to which the trap is attached, runs full and carrying or driving the air before it.

The last might occur frequently, the first if unused for a few days. It may also be emptied by a strong atmospheric blast brought to bear suddenly and forcibly upon the seal.

The merit of this trap is, that the current of flowage through it, fills and moves with nearly equal velocity, through its entire calibre, consequently no deposits form as in some others (see upper surface of D trap Fig. 6). In the D trap it will be seen that by deposit in the upper part where the current does not disturb it, it is simply converted into nearly the same thing as an S trap, and is then no safer from being emptied by blasts of air. It may be as well to mention here that various traps have been invented to meet the defect in the S trap, in regard to being emptied by atmospheric pressure. Among them, and the most common, is the D trap already described, and the round and flat bottomed bottle traps. The bottle traps have a screw cap fitting in the top, by which the traps may be opened and cleaned. This cleaning however is so universally neglected that the bottle traps are not to be recommended.

Probably the Adee traps (see Fig. 7) quite as fully as any other, and with as few defects, secure the seal from breaking by syphonage and by atmospheric blast. They are equally free with the S trap in avoiding filthy deposits quite as foul as that of the sewer and cesspool.

There is, however, a more complicated trap, designed to avoid the

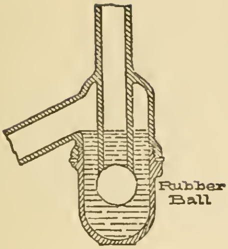

Fig. 8.

breaking of the seal by syphonage, and prevent the inflow of gases, which accomplishes the object quite effectually when the trap is full, and the seal is not so likely to be broken by evaporation. (See Fig. 8.) It will be seen by the illustration that it consists of a pipe or cylinder projecting downwards into a cylindrical pocket, which contains the seal, which is secured by a ball valve, or ball floating up against and closing the mouth of the descending pipe. Small pieces of wood, lint or any floating material that might get into the trap, might for the time being, break the entire security of the trap.

The old S trap with a vent pipe leading to the outer air, (see Fig. 4,) is however the trap which has been heretofore most in use, is now, and probably will be for a long time to come. Perhaps the statement, "with a vent pipe," is not exactly correct, as probably heretofore many more have been used without the vent than with, and when the suggestion is made that the vent pipe should lead to the outer air, it is to be understood that it is meant be conveyed above the house in the drain inside or ventilator or by a flue.

It will be seen in Fig. 5, that the vent pipe of all the traps of bowls C, D and E, open into a ventilator, or vent pipe separate from the inside drain, until it is connected with that drain above the water closet in the attic.

It has previously been suggested that if vent pipes are allowed to open into the main inside pipe and ventilator, it should be at such an angle as to prevent any ingress of fluids from the main drain. By far the best and safest plan is, by an obliquely upward vent pipe opening into a separate ventilating pipe, as in Fig. 6.

MODERN IMPROVEMENTS.

It is not to be denied that there have been in late years many clever contrivances introduced into the dwelling which have been of great convenience to the occupants. Whether these conveniences have all been promotive of the best welfare of the individuals in whose service they were used, is a question which probably all sanitarians would decide in the negative.

Sinks are not new, and are universally admitted to be necessary adjuncts to every dwelling.

The wash bowl and bath tub also contribute so largely to the preservation of health, and add so little to the dangers of foul drains that they may well be named as necessary appendages to every dwelling.

In respect to water closets and urinals, the question assumes a different aspect. It cannot be said that they are necessary appendages, and they cannot be claimed to be conveniences of a very high order; while as nuisances of a decided character and sources of ill-health to those who tolerate and use them, it can be said that it were better for every household if they had never been introduced.

The indolence and effeminacy which they engender may be added to the deterioration of the vital forces, the lessened capacity for physical exercise and endurance, and the increased susceptibility to attacks of disease.

The water closet is in such common use in the best houses in the State, that some general description will be given of the kinds most in use and most preferable if to be put into use.

THE PAN WATER CLOSET.

The Pan Closet, as shown in Figure 9, is in such general use, and in the popular estimate has so many advantages to recommend it that it may well be the first one to be described.

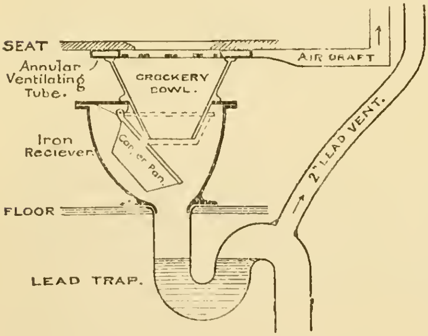

FIG. 9.

This pan consists of a trap, usually constructed of cast iron, and three or four inches in diameter, with a vent pipe at the outer curve between the seal and the connection with the soil pipe. This trap is sometimes made of lead, but of whatever material, the inner surface should be quite smooth, so that no roughness shall obstruct the rapid flow of the current through it, or catch particles of excretæ in the passage.

Next above the trap is what is called a receiver, made of cast iron, (which should always have an enameled porcelain lining,) and which has an opening in the top sufficient to receive the closet bowl to about half its depth, where it is securely fastened by cement or putty. The receiver has a flange at the bottom by which it is fastened to the floor through which the trap pipe is connected with it. Within the iron receiver is a copper pan which is so hinged that it can be raised up against the crockery closet bowl, which has a circular opening at the bottom, and when in this position and full of water, the closet bowl will be about one-quarter or one-third full of water. While water stands in the closet bowl held by the copper pan it constitutes a second trap. After the closet has been used the contents are immediately dropped into the iron receiver and thence into the trap below by lifting a handle connected with the copper pan, the contents of which are also emptied at the same time.

"To a superficial observer this seems to be a perfectly safe device. The circulation between the soil pipe and the room is ordinarily guarded by two traps, and as the pan is supposed to be kept full of water, the fecal matter is dropped directly into this water, and becomes thereby somewhat deodorized. But though so popular this closet is a very defective one, and often becomes a great nuisance in the house from the following causes: The cast iron receiver is soon smeared and spattered with filth all over its interior, which goes on accumulating by successive spatterings, till the decomposition of this foul lining, kept moist and warm, keeps the interior filled with foul odors. In fact it violates the cardinal principles of house drainage, by affording a harbor for the continual and certain accumulation of filth within the house."*

There are various ways in which the foul air engendered within the iron receiver finds ready exit.

The connection of the handle with the copper pan, the hinge or pivot which allows the pan to be raised or lowered, the cracking away and breaking up of the cement or putty fastening of the closet bowl to the iron receiver, these allow streams of attenuated noxious gases to be continually poured into the room and the house, while every lowering of the copper pan and emptying it of its contents, allows free passage to, and in some measure forces up, the poisonous gases that have accumulated within the foul receiver.

Whatever devices have been adopted to obviate the defects of this pan closet, have so added to its cost as to remove the principal merit (cheapness) which has brought it into such universal use. Persons having such closets and indisposed to remove them, should see to it that the interior of the iron receiver is frequently and thoroughly cleansed with water warm or otherwise, and then drenched with a solution of sulphate iron, (green copperas) one pound to the gallon of hot water. A window may also be kept open in the closet room when the weather will permit.

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*American Sanitary Engineering. Philbrick.

Water closets having direct communications with the trap below, (see Fig. 10) or like the pan closet with receiver as previously described, (see Fig. 9) may have ventilation of the closet or closet bowl to some advantage by means of an air draft through a pipe or tube leading to the chimney, or to the vent pipe of the trap. These may be made of zinc or tin, can run under the wood covering and be round, flat or square as might apply best. They can of course only be operative when the lid or cover of closet is closed. Air drafts are seen in Figs. 9 and 10.

THE HOPPER CLOSET.

The hopper closet (see Figures 10 and 11) has not heretofore been very popular.

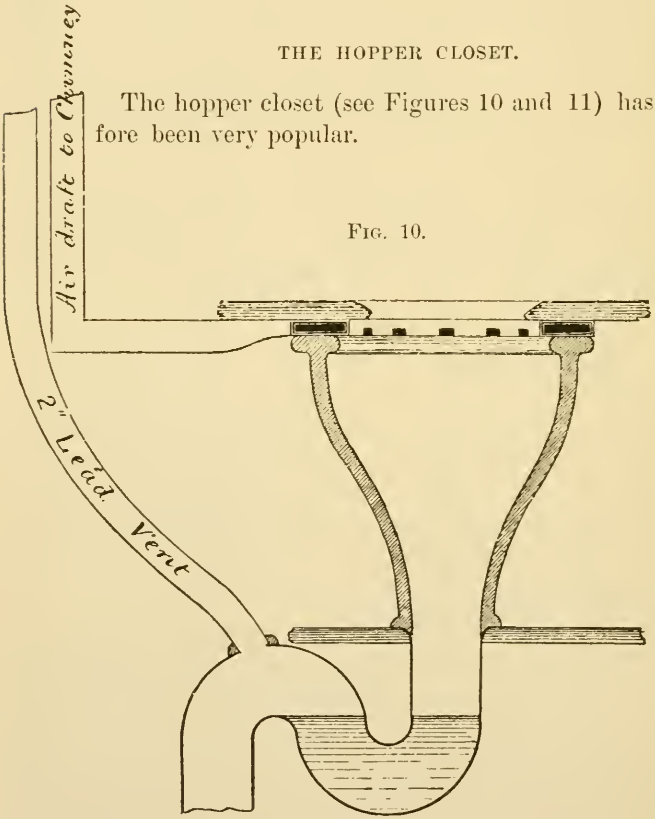
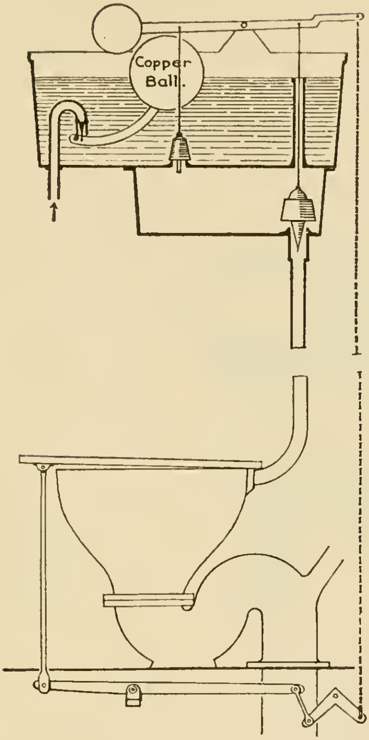


Fig. 10.

FIG. 11.



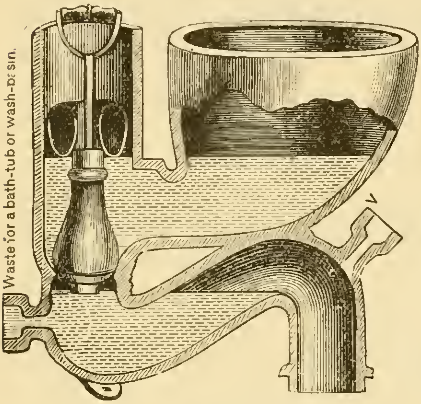
TANK WITH AUTOMATIC SUPPLY.

The difficulty in keeping the inner surface of the bowl clean, and the uncleanness being so apparent to the observation, have made this form of closet so objectionable as to greatly lessen the demand for its use. As now constructed, the former defects are to a great extent remedied, and with the automatic water supply, illustrated in Fig. 11, it furnishes a closet nearly if not quite as desirable as any in the market. The closet bowl, of glazed crockery, or porcelain enameled iron, and the apparatus for water supply, furnishing a rapid, dashing current all around the bowl while in use, and thus washing everything directly into the trap and through it, leaves but little to be desired. It will be seen by reference to Fig. 11, that the water supply is regulated by apparatus put in motion by the weight of the person using the closet, that it is continued during use and no longer, unless for special purpose. The amount of water is sufficient for the desired purpose, and there is no waste when the object is accomplished. The form of short hopper, as seen in Fig. 11, is preferable in some respects to that of the long hopper, as seen in Fig. 10. The water can rise higher in the bowl, and therefore more likely to cover all the surface where the excretæ might adhere.

THE PLUNGER CLOSET.

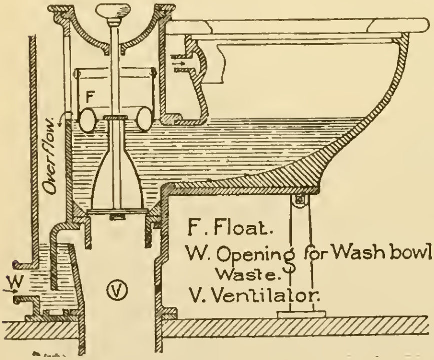
The styles of plunger closet now offered in the market are quite numerous. They are of comparitively recent introduction, at least in the present forms. Figures 12 and 13 will represent quite well this class of water closets, with traps and without. They consist of a bowl, free of any apparatus within itself, but along by the side of the bowl rises an upright cylinder, within which is a float that governs the supply of water, and the plunger that retains the water at the desired height in both cylinder and bowl. A stirrup-like or knob handle surmounts the plunger at the top, and the water and other contents of the bowl and cylinder are discharged when desired, by lifting the plunger with the handle.

Fig. 12.



PLUNGER CLOSET.

Fig. 13.



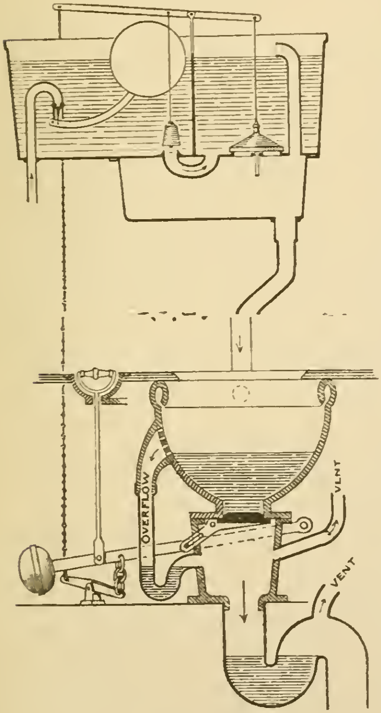
TRAPLESS WATER CLOSET.

"The advantages of this sort of closet are in its definite and adequate supply of water, maintained at such a height as to be sure of receiving all the fecal matter, and to thus avoid the soiling of the bowl by having it drop upon a dry surface, as sometimes happens in hopper closets. The disadvantages are in the liability of the float chamber to become foul by degrees by filth adhering to its sides. Those patterns which have the smallest float chamber are, therefore, the better ones. All the plunger closets take their water supply through a valve attached to the apparatus, governed by the float, and governing in turn the supply of flushing water. The construction of these valves is various, and their action is not always reliable, which has at times caused considerable annoyance. If these valves can be made more certain in their action, and the float chamber made more accessible for frequent cleaning, the apparatus can be made a more satisactory one."*

These closets have the advantage also of flushing the drain below, whether trapped or not, with such a volume and impetuosity as to aid very materially in keeping the surfaces clean of adhering fecal matter. This, however, may at times also be of disadvantage by syphoning traps of pipes connected with the same soil pipe.

THE VALVE CLOSET.

FIG. 14.



VALVE WATER CLOSET AND SUPPLY TANK.

This closet is different from other kinds in having the opening at the bottom of the closet bowl closed by a valve (see Fig. 14) hinged on a pivot and connected by an arm to a lever, which terminates at the free end with an iron ball.

The weight of the ball serves to keep the valve close against the base of the bowl, and the lever when lifted by the handle at the side of the seat, serves to open the bowl by depressing the valve, and discharging the contents of the bowl into a chamber below, opening directly into the trap. The chamber is ventilated by a vent pipe between the base of the bowl and its connection with the trap. The bowl has an overflow pipe also connecting with the chamber, but this overflow pipe is trapped near the chamber to prevent the transmission of gases through the pipe into the bowl and house. The water supply from the tank above is also governed by the handle of the lever.

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*Philbrick, "Am. San. Engineering."

The advantages of this closet are that the bowl is kept sufficiently full of water, while the valve is in order, and it is hardly as liable to get out of order as some other kinds, the chamber receiving the contents of the bowl is small in proportion, and the sudden rush through it helps to keep it cleansed, and the vent pipe of the chamber carries off the noxious gases quite effectually if it communicates with a flue or ventilator opening above any soil pipe. There are some disadvantages however, and it should always have a special and adequate tank.

APPENDIX.

THE REGISTRATION LAW OF RHODE ISLAND.

GENERAL STATUTES, CHAPTER 77.

OF THE REGISTRATION OF BIRTHS, DEATHS AND MARRIAGES.

(As amended June, 1875; April, 1878, and March, 1879.)

Section 1. The town clerks of the several towns, or in lieu thereof, any person whom the board of aldermen of any city, or the town council of any town, may appoint for that purpose, are hereby authorized and required to obtain, chronologically record and index, as required by the forms prescribed by the third section of this chapter, all information concerning births, marriages and deaths, occurring among the inhabitants of their respective towns; and on or before the first Monday of March, annually, to make duly certified returns thereof to the Secretary of the State Board of Health, for each year, ending on the thirty-first day of December, accompanying the same with a list of those individuals, required by law to make returns to him, who have neglected the same, and with such remarks relating to the object of the law, as they may deem important to communicate.

Sec. 2. The Secretary of the State Board of Health shall receive the returns made in pursuance of the preceding section, and annually make and publish, not exceeding one thousand copies, a general abstract and report thereof, in form as prescribed by section third of this chapter. The Secretary of State shall then cause said returns to be arranged, full alphabetical indices of all the names to be made, the whole to be bound in convenient sized volumes, and carefully preserved in his office, for which he shall receive the sum of fifty dollars.

Sec. 3. The blank forms required to carry out the provisions of this chapter shall, on application, be furnished by the Secretary of the State Board of Health, to clergymen, physicians, undertakers, town clerks, clerks of the Society of Friends, and other persons requiring them, substantially after the following forms, viz.: The record of a birth shall state the date and place of birth, name and sex of the child, whether living or still-born, the name and surname, color, occupation, residence and birth-place of the parents, and the time of recording, so far as the same can be ascertained. The record of a marriage shall state the date of the marriage, place, name, residence, and official station of the person by whom married, names and surnames of the parties, age, color, occupation, and residence of each, condition, (whether single, widowed or divorced), what marriage, if second, third, or other marriage, the occupation, birth-place, and name of their parents, and the time of recording, so for as the same can be ascertained. The record of deaths shall state the date of death, name and surname of deceased, the sex, color, and condition (single or married), age, occupation, place of death, place of birth, names and birth-place of parents, disease or cause of death, and the time of recording, so far as can be ascertained.

OF MARRIAGES.

SEC. 4. Every Society of Friends, clergymen and all others, authorized to join persons in marriage, shall make a faithful record of every such rite performed by them, in manner and form aforesaid, and return the same on or before the second Monday of every month, for the last preceding month, to the clerk of the town in which such rite shall have been performed; and no marriage shall be solemnized until the parties shall have signed and delivered to the authority about to solemnize it, or the clerk of a Society of Friends, a certificate containing the information required for the record of a marriage, as prescribed in the third section of this chapter.

OF BIRTHS.

SEC. 5. The clerk of every town, or in lieu thereof, some person or persons whom the town council of any town, or the board of aldermen of any city, shall appoint for the purpose, shall, annually, in the month of January, collect the facts required by section third of this chapter, in relation to all children born in the town during the year ending the thirty-first day of December next preceding, and for each full report of a birth so obtained, shall receive therefor such compensation as the town council or the board of aldermen of their respective towns or cities shall determine, in lieu of such compensation as may now be fixed by law. (By Chapter 782 of the Public Laws, the cities of Providence and Newport are exempt from the provisions of the preceding section, in relation to time of collection and compensation.)

OF DEATHS.

SEC. 6. "Whenever any person shall die or any still-born child shall be brought forth in this State, it shall be the duty of the physician attending at such bringing forth or last sickness, if any physician so attended, within forty-eight hours after such death or bringing forth, to leave with the family, if any, or person having the care of the deceased or the person bringing forth such still-born child, or to give to the undertaker or person who conducts the funeral, a certificate stating, in case of a death, the name of the deceased, the date of the death and the disease or cause of the death, and in case of the bringing forth of a still-born child, the date and the cause of such child being brought forth still-born."

OF UNDERTAKERS.

Sec. 7. There may be appointed by the town authorities of every town, a sufficient number of persons to act as undertakers, removable at the pleasure of the authorities.

Sec. 8. The undertaker, or the person who shall conduct a funeral, or who shall bury or deposit in a tomb, or who shall remove from this State or otherwise dispose of the remains of any deceased person or still-born child, shall first obtain the physician's certificate required by Section 6 of this chapter, if a physician was in attendance upon such person who has deceased, or the person bringing forth such still-born child, and shall return the same, together with his own certificate of the facts required by Section 3, as hereby amended, on or before the second Monday of the next succeeding month to the clerk of the town where such death or bringing forth took place.

Sec. 9. Any town may enact municipal laws, more effectually to attain the objects herein contemplated: *Provided*, they do not conflict with the main and specific object of this act, viz: to procure the most perfect registration.

OF FEES.

Sec. 10. The town clerks, or persons recommended and appointed as aforesaid, shall receive for each record of a death made and returned as required by law, and for each record of a marriage made and returned as required by law, twenty cents, to be paid to them out of their respective town treasuries; *Provided*, that the yearly compensation to be paid out of the town treasury as aforesaid, to any one town clerk or person appointed as aforesaid, who shall faithfully perform the duties prescribed by this chapter, shall not be less than five dollars. Undertakers and others making returns of deaths as required in Section 8 of this chapter shall receive for each full report of a death made to the town clerk, five cents in the cities of Providence and Newport, and ten cents in the other towns of the State.

Sec. 11. If any clergyman, physician, undertaker, town clerk, clerk of any meeting of the Society of Friends, or other persons, shall willfully neglect or refuse to perform any of the duties imposed on, or required of him, by this chapter, he shall, at the discretion of the court trying the case, be fined not exceeding twenty dollars for each offence, one-half thereof to the use of the town in which the offence shall occur, the other half to the use of the person who shall complain of the same.

Sec. 12. In order that it may be more surely ascertained that no clergyman, physician, coroner, undertaker, or clerk of the Society of Friends, neglects to make the returns specified in this chapter, each of the said parties shall cause his name and residence to be recorded in the clerk's office of the town where he resides.

Sec. 13. No letters of administration, or letters testamentary, shall be granted by any court of probate, upon the effects or estate of any person, until the death of such person, or the facts from which the same is presumed, shall be duly certified, as near as may be, to the town clerk, in order that the same may be duly registered according to the provisions of this chapter.

SEC. 14. The person appointed as provided in Section 1 of this chapter, shall be entitled to have the custody of all records of births, deaths or marriages of the town or city for which he is appointed, whether made under the statute now in force or any former statute, and a certificate signed by him as town or city registrar, certifying that any written or printed statement of any marriage, birth or death is a true copy of the record in his custody, shall be admitted as *prima facie* proof of such marriage, birth or death.

SEC. 15. Births, marriages and deaths, of non-residents, shall be distinguished from those of residents, in the returns by being arranged separately.

SEC. 16. The Secretary of the State Board of Health may, from time to time, vary the forms of returns, and require such additional information as he may consider necessary, to effect the object of this chapter.

SEC. 17. *Repealed January Session, 1878.*

SEC. 18. The town clerks or other officers appointed under this chapter, to collect, record and return the births in the several towns, shall receive fees therefor as follows: For collecting the facts required in relation to births, fifteen cents each; for making record and return of these facts as required by law, twenty cents each for the first fifty entries in each calendar year, and ten cents each for each subsequent entry and return.

SEC. 19. The returns required to be made by clerks of the supreme court, in relation to divorces, to the Secretary of the State Board of Health, or a prepared abstract thereof, shall be published in the annual report upon the births, marriages and deaths in the State.

PUBLIC LAWS, CHAPTER 680.

AN ACT TO ESTABLISH A STATE BOARD OF HEALTH.

(As passed April, 1878, and as amended March, 1880.)

It is enacted by the General Assembly as follows:

SECTION 1. The Governor, with the advice and consent of the Senate, shall appoint six persons, two from the county of Providence, and one from each of the other counties, who shall constitute the State Board of Health. Of the persons so appointed, at least three shall be well educated physicians and members of some medical society incorporated by this State. The Governor may remove any member for cause, at any time, upon the written request of two-thirds of the board.

SEC. 2. The six persons first appointed shall be appointed for one, two, three, four, five and six years respectively, and hereafter, the Governor, with the advice and consent of the Senate, shall appoint one member of the board annually, for the term of six years from the first day of July. Any appointment to fill a vacancy shall be for the remainder of the term.

SEC. 3. The board shall take cognizance of the interests of life and health among the citizens of the State; they shall make investigations into the causes of disease, and especially of epidemics and endemics among the people, the sources of mortality, and the effects of localities, employments, conditions and circumstances on the public health, and shall faithfully do all in their power to ascertain the causes and the best means for the prevention of diseases of every kind in the State. They shall publish and circulate, from time to time, such information as they may deem to be important and useful for diffusion among the people of the State, and shall investigate and give advice in relation to such subjects relating to the public health, as may be referred to them by the General Assembly, or by the Governor when the General Assembly is not in session.

SEC. 4. The State Board of Health shall also investigate the subject of diseases among cattle or other animals, and perform all the duties which have been delegated to the Board of Cattle Commissioners, in chapter 76, of the General Statutes of the State.

SEC. 5. Section 3, of chaper 76, of the General Statutes, is hereby repealed, and the Board of Cattle Commissioners, heretofore constituted under authority of said section, is hereby abolished.

SEC. 6. In every section of chapter 76, of the General Statutes, where the word "commissioners" occur, it shall be construed to mean State Board of Health.

SEC. 7. The State Board of Health shall receive the returns of births, marriages, deaths and divorces, and shall prepare the annual report upon the registration of the same as now required by law; but after the report is prepared, the returns shall be deposited in the office of the Secretary of State, to be bound and indexed by him as heretofore.

SEC. 8. Wherever the words "Secretary of State" occur in sections 1, 2, 3, 16 and 19, of chapter 77, of the General Statutes, they shall be construed to mean Secretary of the State Board of Health, and in the sixth line of section 2, of said chapter, the word "he" shall be construed to mean Secretary of State. Section 17, of chapter 77, of the General Statutes, is hereby repealed.

SEC. 9. The board shall meet in the city of Providence once in three months, and as much oftener as they may deem necessary. No member of the board, except the secretary, shall receive any compensation for his services; but the actual personal expenses of any member, while engaged in the duties of the board, shall be paid by the State.

SEC. 10. The board shall elect a well qualified physician as their secretary, who shall be *ex-officio* a member of the Board, the Commissioner of Public Health and State Registrar of Vital Statistics; but shall not thereby vote on any question upon which he is personally interested or be entitled to any additional compensation for mileage or expenses.

SEC. 11. The secretary of the said board shall make inquiry, from time to time, of the clerks of town and local boards of health, in relation to the prevalence of any disease, or any knowledge of any known or generally believed source of disease, or causes of general ill-health, and also in relation to the proceedings of the said boards of health, in respect to acts for the promotion and protection of the public health, and also in relation to diseases among domestic animals in their several towns and localities respectively; and the said clerks of town and local boards of health shall give such information, in reply to said inquiries, of such facts and circumstances as have come to their knowledge.

Sec. 12. The secretary shall perform and superintend the work prescribed in this law, and such other duties as the board may require, and he shall receive such salary, not in excess of twelve hundred dollars per annum, as the board may determine. He shall hold his office at the pleasure of the board, but may be removed at any regular meeting by a majority vote of the members thereof.

Sec. 13. The Governor shall provide a suitable office for the board in the city of Providence, and the actual expenses of the board and the members thereof, when certified by the chairman and approved by the Governor, shall be paid from the treasury of the State.

Sec. 14. The board shall make a report in print to the General Assembly, annually, of its proceedings during the year ending on the thirty-first day of December next preceding, with such suggestions in relation to the sanitary laws and interests of the State as they shall deem important.

Sec. 15. All acts and parts of acts inconsistent herewith are hereby repealed.

Sec. 16. The several town councils and boards of aldermen shall still be *ex-officio* Boards of Health in their respective towns, as is now by law provided. *Provided, however*, That the city council of any city may appoint a Board of Health for such city, which shall have all the powers and duties now conferred by law upon the board of aldermen as a Board of Health.

SYNOPSIS OF THE LAW OF MARRIAGE IN RHODE ISLAND.

TITLE XX., CHAPTER 149, GENERAL STATUTES.

(As amended January Session, 1881.)

SECTIONS 1, 2 and 3 show what kindred persons cannot marry, and declare marriages, within prohibited degrees, null and void.

SEC. 4 makes an exception in favor of Jews, within the degrees of affinity allowed by their religion.

SEC. 5 declares the marriage of persons having a husband or wife living, and of idiots or of lunatics, absolutely void.

SEC. 6. Prohibiting intermarriage of white and colored. Repealed January Session, 1881.

SEC. 7. "Any ordained minister or elder of any religious denomination, or minister of any society professing to meet for religious purposes and incorporated and sustaining a minister publicly ordained, and holding stated and regular services, who shall be *domiciled* in this State, and either Justice of the Supreme Court, may join persons in marriage in any town of the State." It will be seen that clergymen from other States *cannot solemnize marriages* in Rhode Island. Marriages solemnized in Rhode Island by clergyman living out of the State, are null and void.

SEC. 8. " Wardens in the town of New Shoreham may join persons in marriage in said town.

SEC. 9 provides that no minister, elder or magistrate shall join any person in marriage, unless such persons shall, if residents of this State previous thereto, obtain from the clerk of the town or city, in which such persons shall reside, or from the registrar of births, marriages and deaths of the city of Providence, if they shall reside therein, and if not residents of this State, from the town or city clerk or registrar of the town or city in which the marriage shall be solemnized, and shall deliver to such minister, elder or magistrate a certificate, properly signed, witnessed and certified by such clerk or registrar, setting forth the names and surnames of the parties, the age, color, occupation, birth-place and residence of each, whether either or both have been before married, and if before married, whether the marriage intended to be the first, second, third or other marriage, and also whether the condition of either or both persons previously married is that of a divorced persons, or of a widower or widow, as the case may be, and the names, occupation and birth-place of each of their parents; and no town or city clerk or registrar of births, marriages and deaths in the city of Providence shall issue such certificate to any minor or person under guardianship, unless the consent in writing of the parents or guardian shall have been first obtained.

Sec. 10 forbids marriages when lawful objection is made in writing until such lawful objection is removed.

Secs. 11, 12 and 13 state the penalty for marrying persons who are already married; and the penalty for being married contrary to the provisions of the law; that is, imprisonment not exceeding six months, or a fine not exceeding one thousand dollars.

Sec. 14. "The solemnization of marriage shall be in the presence of two witnesses at least, besides the minister, elder or magistrate officiating."

Secs. 15 and 16 relate to marriages among Quakers or Friend, and among Jews, making them valid if in accordance with the forms, rites and ceremonies of the same, respectively.

☞The attention of clergymen is especially called to this synopsis of the Marriage Law. Some of the provisions are not unfrequently violated. The Registration Law of Rhode Island requires clergymen to make returns of all marriages to the Town Clerk or Registrar of the town, on or before the second Monday of the month succeeding the date of the marriage.

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